PB83-127225

Regulations and Non-Regulatory Revisions to State Implementation Plan: Texas

Atlantic Environmental Associates, Inc.
Waltham, MA

Prepared for

Environmental Protection Agency
Research Triangle Park, NC

Oct 81

U.S. Department of Commerce
National Technical Information Service
NTIS

United States
Environmental Protection
Agency

Office of Air Quality
Planning and Standards
Research Triangle Park NC 27711

EPA-450/2-81-063
July 1981

PB83-127225

Air

EPA

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EPA-450/2-81-063

Regulations and Non-Regulatory Revisions to State Implementation Plan: Texas

By

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Contract No. 68-02-3565

EPA Project Officer: Willis P. Beal

Prepared for

U.S ENVIRONMENTAL PROTECTION AGENCY
Control Programs Development Division
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

July 1981

TECHNICAL REPORT DATA

(Please read Instructions on the reverse before completing)

1. REPORT NO.
EPA-450/2-81-063

2.

3. RECIPIENT'S ACCESSION NO.
PB83 127225

4. TITLE AND SUBTITLE
Regulations and Non-Regulatory Revisions to State Implementation Plan: Texas

5. REPORT DATE
October, 1981

6. PERFORMING ORGANIZATION CODE

7. AUTHOR(S)

8. PERFORMING ORGANIZATION REPORT NO.

9. PERFORMING ORGANIZATION NAME AND ADDRESS
Atlantic Environmental Associates, Inc.
59 Vernon Street
Waltham, MA 02154

10. PROGRAM ELEMENT NO.

11. CONTRACT/GRANT NO.
68-02-3565

12. SPONSORING AGENCY NAME AND ADDRESS
Control Programs Development Division
Office of Air Quality Planning and Standards
Research Triangle Park, NC 27711

13. TYPE OF REPORT AND PERIOD COVERED

14. SPONSORING AGENCY CODE

15. SUPPLEMENTARY NOTES
EPA Project Officer: Willis P. Beal

16. ABSTRACT

This document has been produced in compliance with Section 110(h) of the Clean Air Act, as amended in 1977, which mandates periodic publication of State Implementation Plan (SIP) requirements. The first section of the document comprises the Federally approved SIP regulations. It consists of the EPA-approved State and/or local air pollution control regulations cited by reference in the Federal Register; regulations promulgated as of August 1, 1981 have been included in this document.

The present compilation constitutes an update of a previous documentation of regulations as of July 1, 1979. State and/or local air quality regulations which have not been Federally approved as of August 1, 1981, are not included. However, any omissions of regulations from this document in no way affects the ability of the respective Federal, State, or local agencies to enforce such regulations. A summary sheet of the regulatory revisions is provided to give a quick historical assessment of the changes.

The second part of the document contains the text of non-regulatory SIP revisions approved by EPA up to August 1, 1981, excluding notices or certifications of public hearings and technical support data. A complete tabulation of these revisions is also provided.

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
Air Pollution State Regulations State Implementation Plans		

18. DISTRIBUTION STATEMENT	19. SECURITY CLASS (This Report)	21. NO. OF PAGES
Release Unlimited	Unclassified	136
	20. SECURITY CLASS (This page)	22. PRICE
	Unclassified	

EPA Form 2220-1 (Rev. 4-77) PREVIOUS EDITION IS OBSOLETE

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PREFACE

This document has been produced in compliance with Section 110(h) of the Clean Air Act, as amended in 1977, which mandates periodic publication of State Implementation Plan (SIP) requirements. The first section of the document comprises the Federally approved SIP regulations. It consists of the EPA approved State and/or local air pollution control regulations cited by reference in the Federal Register; all regulations Federally promulgated as of August 1, 1981 have been included.

The present compilation constitutes an update of a previous documentation of regulations as of July 1, 1979.* State and/or local air quality regulations which have not been Federally approved as of August 1, 1981 are not included. However, any omissions of regulations from this document in no way affects the ability of the respective Federal, State or local agencies to enforce such regulations.

This document is not intended to provide a tool for determining the enforceability of any given regulation. Rather, it is intended to provide a comprehensive compilation of those regulations which are incorporated by reference into Title 40, Part 52, of the Code of Federal Regulations (CFR). The exclusion of a Federally approved regulation from this document does not diminish the enforceability of the regulation. Similarly, the inclusion of a given regulation in this document does not, in itself, render the regulation enforceable by either the State or EPA.

The regulations have been organized in this document according to the official State/local agency format. However, since State air quality regulations vary widely in their organization, content, and language, a standardized subject index has been added. The index listings consist of both pollutant and activity oriented categories to facilitate usage. For example, regulations which apply to copper smelters may be found under sulfur compounds (50.2), particulate matter process weight (50.1.1), or copper smelters (51.15). Federal regulations pertaining to a given State are not included herein but can be found under Title 40 Code of Federal Regulations, Part 52.

Additionally, a summary sheet of the regulatory revisions is included to provide a quick historical assessment of the changes. These summary sheets contain the date of submittal to EPA of each revision and the Federal Register publication date on which the revision was approved by EPA. A brief description of the regulation which was submitted is also included.

In accordance with the Act, the second part of the document contains non-regulatory SIP revisions approved by EPA up to August 1, 1981. All approved non-regulatory revisions listed under Identification of Plan in the CFR are included except notices or certifications of public hearings, and technical support data. Non-regulatory submittals which have only received EPA approval on selected elements are included in their entirety with an accompanying indication of the status of Federal actions on the non-approved elements. The non-regulatory revisions have been organized in this document according to the date of publication of EPA approval in the Federal Register. For historical completeness, a complete tabulation of these revisions is provided at the beginning of this second section.

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* Regulations and Non-Regulatory Revisions to State Implementation Plan: Texas, EPA-450/2-80-050, prepared under Contract 68-02-3388, July 31, 1980.

SUMMARY OF
EPA-APPROVED REGULATORY REVISIONS TO STATE OF TEXAS SIP
BETWEEN JULY 1, 1979 AND JULY 31, 1981

Publication of Approval	Submittal Date	Page	Document Description
03/25/80	04/13/79	45FR19244	Revisions to the general rules, Regulation I, Regulation V, Regulation VI. A new Regulation IX was also adopted.
07/10/81	07/25/80	46FR35642	Revisions to Regulation VI (i.e., Subchapter 116.3(a)(13-15)) and the definition of "de minimus impact".

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GENERAL RULES
131.01.00.001

.001. DEFINITIONS. In addition to the terms which are defined by the Texas Clean Air Act, (Article 4477-5, V.A.C.S.), the following terms shall have the meanings given herein:

(1) Acid-Gas Flare. A flare used exclusively for the incineration of hydrogen sulfide and other acidic gases derived from natural gas sweetening processes.

(2) Act. The Texas Clean Air Act, codified as Article 4477-5.

(3) Ambient Air. That portion of the atmosphere, external to buildings, to which the general public has access.

(4) Article. When the followed by a number "article" refers to provisions of the law as codified in Vernon's Annotated Civil Statutes (V.A.C.S.) of Texas, 1925, as amended.

(5) Background. Background concentration, the level of air contaminants that cannot be reduced by controlling emissions from man-made sources. It is determined by measuring levels in non-urban areas.

(6) Bulk Gasoline Plant. A gasoline loading and/or unloading facility having a gasoline throughput less than 20,000 gallons (75,700 liters) per day, averaged over any consecutive 30-day period.

(7) Chemical Process Plant. Any facility, other than a petroleum refinery, which uses carbon or a carbon-based compound as a feedstock and which, through chemical processes or reactions, changes that compound into a different product(s), by-product(s), or waste product(s).

(8) Combustion Unit. Any boiler plant, furnace, incinerator, flare, engine, or other device or system used to oxidize solid, liquid, or gaseous fuels, but excluding motors and engines used in propelling land, water, and air vehicles.

(9) Commercial Incinerators. An incinerator used to dispose of waste material from retail and wholesale trade establishments.

(10) Condensate. Liquids that result from the cooling and/or pressure changes of produced natural gas. Once these liquids are processed at gas processing plants or refineries or in any other manner, they are no longer considered condensates.

(11) Construction-Demolition Waste. Waste resulting from construction or demolition projects.

(12) Custody Transfer. The transfer of produced crude oil and/or condensate, after processing and/or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.

existing

(13) De minimis Impact - A change in ground level concentration of an air contaminant as a result of the operation of any new major stationary source or of the operation of any existing source which has undergone a major modification, which does not exceed the following specified amounts:

spec[illegible]

AIR CONTAMINANT	ANNUAL	24-HOUR	8-HOUR	3-HOUR	1-HOUR
TOTAL SUSPENDED PARTICULATE	1.0 $\mu g/m^3$	5 $\mu g/m^3$			
SULFUR DIOXIDE	1.0 $\mu g/m^3$	5 $\mu g/m^3$		25 $\mu g/m^3$	
NITROGEN DIOXIDE	1.0 $\mu g/m^3$				
CARBON MONOXIDE			0.5 mg/m^3		2 mg/m^3

(14) Domestic Wastes. The garbage and rubbish normally resulting from the functions of life within a residence.

(15) Downwind Level. The concentration of air contaminants from a source or sources on a property as measured at or beyond the property boundary.

(16) Exhaust Emission. Air contaminants emitted to the atmosphere from an opening downstream from the exhaust ports of a motor vehicle engine.

(17) External Floating Roof. A cover or roof in an open top tank which rests upon or is floated upon the liquid being contained and is equipped with a single or double seal to close the space between the roof edge and tank shell. A double seal consists of two complete and separate closure seals, one above the other, containing an enclosed space between them.

(18) Federal Motor Vehicle Regulation. The Motor Vehicle Air Pollution Standards, Title 45, Subtitle A, Part 85, Code of Federal Regulations.

(19) Forage. Any vegetation which may be consumed by animals.

(20) Fugitive Emission. Any gaseous or particulate contaminant entering the atmosphere without first passing through a vent designed to direct or control its flow.

(21) Garbage. Solid waste consisting of putrescible animal and vegetable waste materials resulting from the handling, preparation, cooking, and consumption of food, including waste materials from markets, storage facilities, handling and sale of produce and other food products.

(22) Gas Processing Plant. Any facility which is not a part of a petroleum refinery and which uses as its only feedstock a gas stream containing carbon or carbon-based compounds, and which through chemical or mechanical means processes that stream for the removal of some or all of the carbon compounds, sulfur compounds, carbon dioxide, or water.

(23) Gasoline. Any petroleum distillate having a Reid Vapor Pressure (RVP) of 4 pounds (27.6 kPa) or greater which is produced for use as a motor fuel and is commonly called gasoline.

(24) Gasoline Terminal. A gasoline loading and/or unloading facility having a gasoline throughput equal to or greater than 20,000 gallons (75,700 liters) per day, averaged over any consecutive 30-day period.

(25) Incinerator. An enclosed combustion apparatus and appurtenances thereto which is used in the process of burning wastes for the primary purposes of reducing its

volume and weight by removing the combustibles of the waste, and which is equipped with a flue for conducting products of combustion to the atmosphere. An open trench type (with closed ends) combustion unit may be considered an incinerator when approved by the Executive Director.

(26) Inorganic Floride Compounds. All inorganic chemicals having an atom or atoms of fluorine in their chemical structure.

(27) Internal Floating Roof. A cover or roof in a fixed roof tank which rests upon or is floated upon the liquid being contained, and is equipped with a closure seal or seals to close the space between the roof edge and tank shell.

(28) Liquified Petroleum Gas. Propane or butane, or any combination thereof, in the liquid state.

(29) Lowest Achievable Emission Rate. For any emitting facility, that rate of emissions of a contaminant which does not exceed the amount allowable under applicable new source performance standards and which reflects:

> (A) The most stringent emission limitation which is contained in the rules and regulations of any approved state implementation plan for a specific class or category of facility, unless the owner or

operator of the proposed facility demonstrates that such limitations are not achievable, or

(B) the most stringent emission limitation which is achieved in practice by a specific class or category of facilities, whichever is more stringent.

(30) Major Modification. Any modification to an existing stationary source which increases 1) potential emissions by 100 tons per year, 2000 pounds per day, 200 pounds per hour or more, and 2) actual or allowable emissions by 50 tons per year, 1000 pounds per day, or 100 pounds per hour or more of any air contaminant (including volatile organic compounds) for which a national ambient air quality standard has been issued.

(31) Major stationary Source. Any stationary source which 1) emits, or has the potential to emit, 100 tons per year, 2000 pounds per day, 200 pounds per hour or more, and 2) which has or will have actual or allowable emissions of 50 tons per year, 1,000 pounds per day, or 100 pounds per hour, or more of any air contaminant (including volatile organic compounds) for which a national ambient air quality standard has been issued.

(32) Major Upset. An unscheduled occurrence or excursion of a process or operation that results in an emis-

sion of air contaminants that contravenes the Texas Clean Air Act and is beyond immediate control, or a release that is initiated to protect life in the immediate or adjacent areas.

(33) Motor Vehicle. A self-propelled vehicle designed for transporting persons or property on a street or highway.

(34) Motor Vehicle Fuel Dispensing Facility. Any site where gasoline is dispensed to motor vehicle fuel tanks from stationary storage tanks.

(35) Municipal Solid Waste. Solid waste resulting from or incidental to municipal, community, commercial, and recreational activities, including garbage, rubbish, ashes, street cleanings, dead animals, abandoned automobiles, and all other solid waste except industrial solid waste.

(36) Net Ground-Level Concentration. The upwind level subtracted from the downwind level.

(37) New Source. Any stationary source, the construction or modification of which is commenced after the date or adoption of these regulations.

(38) Non-Methane Hydrocarbons. The total hydrocarbon content of the sample minus the methane content of the sample.

(39) Opacity. The degree to which an emission of air contaminants obstructs the transmission of light, expressed as the percentage of light obstructed as measured by an optical instrument or trained observer.

(40) Outdoor Burning. Any fire or smoke-producing process which is not conducted in a combustion unit.

(41) Particulate Matter. Any material, except uncombined water, that exists as a solid or liquid in the atmosphere or in a gas stream at standard conditions.

(42) Petroleum Refinery. Any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through distillation of crude oil, or through the redistillation, cracking, extraction, or reforming of unfinished petroleum derivatives.

(43) Population Equivalent. The hypothetical population which would generate an amount of solid waste equivalent to that actually being processed or disposed of based on a generation rate of five pounds per capita per day and applied to situations involving solid waste not necessarily generated by individuals.

(44) Potential to Emit. The capability at maximum capacity to emit a contaminant in the absence of air pollution control equipment. "Air Pollution Control Equipment" includes control equipment which is not, aside

from air pollution control requirements, vital to production of the normal product of the source or to its normal operation. Annual potential shall be based on the maximum annual rated capacity of the source, unless the source is subject to enforceable permit conditions which limit the hours of operation. Enforceable permit conditions on the type or amount of materials combusted or processed may be used in determining the potential emission rate of a source.

(45) Process or Processes. Any action, operation or treatment embracing chemical, commercial, industrial, or manufacturing factors such as combustion units, kilns, stills, dryers, roasters, and equipment used in connection therewith, and all other methods or forms of manufacturing or processing that may emit smoke, particulate matter, gaseous matter, or visible emissions.

(46) Process Weight Per Hour. "Process Weight" is the total weight of all materials introduced or recirculated into any specific process which process may cause any discharge of air contaminants into the atmosphere. Solid fuels charged into the process will be considered as part of the process weight, but liquid and gaseous fuels and combustion air will not. The "Process Weight Per Hour" will be derived by dividing the total process

weight by the number of hours in one complete operation from the beginning of any given process to the completion thereof, excluding any time during which the equipment used to conduct the process is idle. For continuous operation, the "Process Weight Per Hour" will be derived by dividing the process weight for a 24-hour period by twenty-four.

(47) Property. All land under common control or ownership on which any source or combination of sources is located, coupled with all improvements on such land, and all fixed or movable objects on such land, or any vessel on the waters of this State which may constitute a source.

(48) Reasonable Further Progress. Annual incremental reductions in emissions of the applicable air contaminant which are sufficient to provide for attainment of the applicable national ambient air quality standard in the designated nonattainment areas by the date required in the State Implementation Plan.

(49) Rubbish. Nonputresicible solid waste, consisting of both combustible and noncombustible waste materials; combustible rubbish includes paper, rags, cartons, wood, excelsior, furniture, rubber, plastics, yard trimmings, leaves, and similar materials; noncombustible rubbish includes glass, crockery, tin cans, aluminum cans,

metal furniture, and like materials which will not burn at ordinary incinerator temperatures (1600°F to 1800°F).

(50) Significant Contribution. A ground level concentration of an air contaminant (other than volatile organic compounds), for which a national ambient air quality standard has been issued and which is predicted to occur at any point at which such standard is exceeded or may be expected to be exceeded as a result of the operation of any new major stationary source or of the operation of any existing source which has undergone a major modification, which exceeds one or more of the following amounts:

Air Contaminant	Averaging Time				
	Annual	24-Hour	8-Hour	3-Hour	1-Hour
Total Suspended Particulate	1.0 $\mu g/m^3$	5 $\mu g/m^3$			
Sulfur Dioxide	1.0 $\mu g/m^3$	5 $\mu g/m^3$		25 $\mu g/m^3$	
Nitrogen Dioxide	1.0 $\mu g/m^3$				
Carbon Monoxide			0.5 mg/m^3		2 mg/m^3

(51) Smoke. Small gas-borne particles resulting from incomplete combustion, consisting predominately of carbon and other combustible material and present in sufficient quantity to be visible.

(52) Sour Gas. Any natural gas containing more than one and one-half (1 1/2) grains of hydrogen sulfide per one hundred (100) cubic feet, or more than thirty

(30) grains of total sulfur per one hundred (100) cubic feet.

(53) Sour Crude. A crude oil which will emit a sour gas when in equilibrium at atmospheric pressure.

(54) Source. A point of origin of air contaminants, whether privately or publicly owned or operated. Upon request of a source owner the Executive Director shall determine whether multiple processes emitting air contaminants from a single point of emission will be treated as a single source or as multiple sources.

(55) Specified Solvent Using Processes.

(A) Cutback Asphalt. Any asphaltic cement which has been liquefied by blending with petroleum solvents (diluents).

(B) Cold Solvent Cleaning. The batch process of cleaning and removing soils from metal surfaces by spraying, brushing, flushing and/or immersion while maintaining the solvent below its boiling point. Wipe cleaning (hand cleaning) is not included in this definition.

(C) Open-Top Vapor Degreasing. The batch process of cleaning and removing soils from metal surfaces by condensing hot solvent vapors on the colder metal parts.

(D) Conveyorized Degreasing. The continuous process of cleaning and removing soils from metal surfaces by operating with either cold or vaporized solvent.

(56) Standard Conditions. A condition at a temperature of 68°F (20°C) and a pressure of 14.7 pounds per square inch absolute (101.3 kilo Pascals). Pollutant concentrations from an incinerator will be corrected to a condition of 50% excess air if the incinerator is operating at greater than 50% excess air. (6893 Pascals [Pa] = 1 psia: 1000 Pascals [Pa] = 1 kilo Pascal [kPa]).

(57) Standard Metropolitan Statistical Area. An area consisting of a county or one or more contiguous counties which is officially so designated by the U.S. Bureau of the Budget.

(58) Submerged Fill Pipe. A fill pipe that extends from the top of a tank to have a maximum clearence of 6 inches from the bottom or, when applied to a tank which is loaded from the side, that has a discharge opening entirely submerged when the pipe used to withdraw liquid from the tank can no longer withdraw liquid in normal operation.

(59) Sulfur Compounds. All inorganic or organic chemicals having an atom or atoms of sulfur in their chemical structure.

(60) Surface Coating Processes. Continuous or assembly-line surface coating operations using solvent-containing liquids.

(A) Large-Appliance Coating. The coating of doors, cases, lids, panels, and interior support parts of residential and commercial washers, dryers, ranges, refrigerators, freezers, water heaters, dishwashers, trash compactors, air conditioners, and other large appliances.

(B) Metal Furniture Coating. The coating of metal furniture (tables, chairs, waste baskets, beds, desks, lockers, benches, shelves, file cabinets, lamps, and other metal furniture products) or the coating of any metal part which will be a part of a nonmetal furniture product.

(C) Coil Coating. The coating of any flat metal sheet or strip supplied in rolls or coils.

(D) Paper Coating. The coating of paper and pressure-sensitive tapes (regardless of subtrate and including paper, fabric, and plastic film) and related web coating processes on plastic film (including typewriter ribbons, photographic film and magnetic tape) and metal foil (including decorative, gift wrap, and packaging). This definition does not in-

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clude operations using a web coating (printing process that does not distribute coatings uniformly across the web.

(E) Fabric Coating. The application of coatings to fabric, which includes rubber application (rainwear, tents, and industrial products such as gaskets and diaphrams).

(F) Vinyl Coating. The use of printing or any decorative or protective topcoat applied over vinyl sheets or vinyl-coated fabric.

(G) Can Coating. The coating of cans for beverages (including beer), edible products (including meats, fruit, vegetalbes and others), tennis balls, motor oil, paints, and other mass-produced cans.

(H) Automobile Coating. The assembly-line coating of passenger cars, or passenger car derivatives, capable of seating 12 or fewer passengers.

(I) Light-Duty Truck Coating. The assembly-line coating of motor vehicles rated at 8500 pounds (3859 kg) gross vehicle weight or less and designed primarily for the transportation of property, or derivatives such as pick-ups, vans, and window vans.

(61) Sweet Crude Oil and Gas. Those crude petroleum hydrocarbons that are not "sour" as defined.

(62) Systems or Device. Any article, chemical, machine, equipment, or other contrivance, the use of which may eliminate, reduce, or control the emissions of air contaminants to the atmosphere.

(63) True Vapor Pressure. The absolute aggregate partial vapor pressure (psia) of all volatile organic compounds at the temperature of storage, handling or processing.

(64) Upwind Level. The representative concentration of air contaminants flowing onto a property as measured at any point.

(65) Vapor Recovery System. Any control system that reduces volatile organic compound (VOC) emissions such that the aggregate partial pressure of all VOC vapors will not exceed a level of 1.5 psia (10.3 kPa) or other emission limits specified in Texas Air Control Board Regulation V (Chapter 131.07).

(66) Vapor-Tight. Not capable of allowing the passage of gases at the pressures encountered.

(67) Vent. Any duct, stack, chimney, flue, conduit or other device used to conduct air contaminants into the atmosphere.

(68) Visible Emissions. Particulate or gaseous matter which can be detected by the human eye. The radiant energy from an open flame shall not be considered a visible emission under this definition.

(69) Volatile Organic Compound. Any compound of carbon or mixture of carbon compounds excluding methane, ethane, methyl chloroform, Freon 113, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate.

(70) Volatile Organic Compound - Water Separator. Any tank, box, sump, or other container in which any volatile organic compound, floating on or contained in water entering such tank, box, sump, or other container, is physically separated and removed from such water prior to outfall, drainage, or recovery of such water.

REGULATION I

CONTROL OF AIR POLLUTION FROM SMOKE, VISIBLE EMISSIONS, AND PARTICULATE MATTER

131.03.01 (Rule 101.) Outdoor Burning

.001 No person may cause, suffer, allow or permit any outdoor burning within the State of Texas, except as provided by Rule 131.03.01.002 (Rule 101.2).

.002 Outdoor burning is authorized in the following instances:

(a) Outdoor burning when conducted pursuant to a written grant of authority by the Texas Air Control Board or Executive Secretary.

(b) Outdoor burning for the purpose of training fire-fighting personnel when requested by certified mail and when authorized in writing by the local health unit. If notice of denial from the local air pollution control agency or local health unit is not received within ten (10) days of the request, the burning is authorized. Authorization to conduct outdoor burning under this provision may be revoked by the Texas Air Control Board if it is found that this provision is used to circumvent Rules 131.03.01.001-.004 (Rule 101).

(c) Outdoor burning of domestic waste at and from a property designed for and used exclusively as a private residence, housing not more than three families when collection of the domestic waste is not provided by the local governmental entity having jurisdiction.

(d) Outdoor burning consisting of campfires and fires used solely for recreational or ceremonial purposes, or in the non-commercial preparation of food.

(e) Outdoor burning of diseased animals when burning is the most effective means of controlling the spread of disease.

(f) Outdoor burning in a rural area of trees, brush, grass, and other dry vegetable matter from such area in land-clearing, right-of-way maintenance operations, forest management purposes, and range land management purposes, if all the following conditions are met:

(1) The burning must be outside the corporate limits of a city or town except when it is necessary to eliminate a naturally occurring fire hazard.

(2) The wind direction at the time of starting the burning must be away from any nearby city, town, residence, recreational, commercial, or industrial area.

(3) The burning must be at least one thousand feet from any residence, recreational, commercial, or industrial area except those located on the property where the burning is to take place, except when it is necessary to eliminate a naturally occurring fire hazard.

(4) Heavy oils, asphaltic materials, items containing natural or synthetic rubber or any material other than dry plant growth which may produce unreasonable amounts of smoke must not be burned.

(5) If the burning will cause smoke to blow onto or across a highway, it is the responsibility of the person initiating the burning to post flagmen on affected roads in accordance with the requirements of the Department of Public Safety.

(6) The initial burning for land clearing and right-of-way maintenance purposes may be commenced after 9:00 a.m. Material which will not be completely consumed before 5:00 p.m. shall not be added to the fire.

(7) Burning within an area should be staggered so that total atmospheric loads of smoke are reduced.

(8) Burning shall not be conducted when meteorological forecasts predict wind movement of less than three (3) miles per hour or greater than fifteen (15) miles per hour or when a significant shift in wind direction is predicted which could produce adverse effects to personnel, animals, or property during the burning period.

(9) Burning shall not be conducted during periods of actual or predicted persistent (12 hours or more) low-level (below 1600 feet) atmospheric inversions or in areas covered by a current air stagnation advisory.

(h) The outdoor burning of solid wastes may be conducted if the following conditions are met:

(1) Outdoor burning of municipal solid waste may be conducted at Texas Department of Health (TDH) permitted Type II or III landfill sites (sites serving less than 5,000 population equivalent) located in any county with a population of 100,000 or less as determined by the latest United States population census if prior authority is obtained from the Executive Director of the Texas Air Control Board. Heavy oils, asphaltic materials, and vehicle tires must not be burned.

(2) Outdoor burning of brush and demolition-construction wood waste may be conducted at TDH permitted Type IV landfill sites, as defined by the TDH, located in the counties described in Rule 131.03.01.002(h)(1) if prior authority if obtained from the Executive Director of the Texas Air Control Board. Heavy oils, asphaltic materials, and vehicles tires, must not be burned.

(i) The Executive Director of the Texas Air Control Board may specify procedures or methods to control or abate emissions from outdoor burning authorized pursuant to this rule (131.03.01.002) by requiring that trenches be dug to align with prevailing winds, specifying time for burning, and other related factors. Authorizations to burn may be revoked by the Executive Director at any time if he determines that: the burning is causing nuisance conditions to exist, the burning is not conducted in accordance with the conditions specified by the Executive Director, the burning violates any provision of an applicable permit, or the burning causes a violation of any air quality standard.

.003 No disposal or deposit outdoors of any material capable of igniting spontaneously is allowed except where the disposal or deposit is made pursuant to a specific grant of authority by the Texas Air Control Board or the Executive Secretary.

.004 The authority to conduct outdoor burning under this Regulation does not exempt or excuse the person responsible from the consequences, damages, or injuries resulting from the burning and does not exempt or excuse anyone from complying with all other applicable laws or ordinances, Regulations and orders of governmental entities having jurisdiction even though the burning is otherwise conducted in compliance with the Regulation.

131.03.02
(Rule 102.) Incineration

.001 No person may cause, suffer, allow, or permit the burning of garbage or rubbish in a single-chamber residential or commercial incinerator unless the Executive Secretary approves an incinerator demonstrated to provide equivalent performance to multiple chamber incinerators.

.002 No person may cause, suffer or permit the burning of garbage or rubbish in a single-chamber incinerator constructed after April 1, 1972, unless the Executive Secretary approves an incinerator demonstrated to provide equivalent performance to multiple-chamber incinerators.

131.03.03
(Rule 103.) Visible Emissions.

.001 No person may cause, suffer, allow, or permit visible emissions from any stationary flue to exceed an opacity of 30% averaged over a 5-minute period. No person may cause, suffer, allow, or permit visible emissions from any stationary flue beginning construction after January 31, 1972, to exceed an opacity of 20% averaged over a 5-minute period. Visible emissions during the cleaning of a firebox or the building of a new fire, sootblowing, equipment changes, ash removal and rapping of precipitators may exceed the limits set forth in Rule 103.1 for a period aggregating not more than five minutes in any sixty consecutive minutes, nor more than six hours in any ten-day period.

.002 Gas Flares. No person may cause, suffer, allow or permit visible emissions from a gas flare for more than five minutes in any 2-hour period except as provided in Rule 131.01.00.012(1) of the General Rules. Acid gas flares are exempt from the provisions of this rule; however, acid gas flares must continue to comply with the preceding rule (131.03.03.0001).

.003 No person may cause, suffer, allow, or permit excessive visible emissions from any building or enclosed facility.

.004 No person may cause, suffer, allow, or permit excessive visible emissions from motor vehicles for more than ten consecutive seconds.

.005 No person may cause, suffer, allow, or permit excessive visible emissions from any railroad locomotive, ship or any other vessel, except during reasonable periods of engine start-up.

.006 No person may cause, suffer, allow, or permit visible emissions from any stationary flue having a total flow rate of 100,000 acfm or more to exceed an opacity of 15% averaged over a 5-minute period unless an optical instrument capable of measuring the opacity of emissions is installed in the flue. Records of all such measurements shall be retained as provided for in Rule 9 of the General Rules. The provision shall not apply to flues having gas streams containing moisture which interferes with proper instrument operation, if so determined by the Executive Secretary.

.007 Contributions from uncombined water shall not be included in determining compliance with Rule 103. The burden of proof which establishes the applicability of Rule 103.7 shall be upon the person seeking to come within its provisions.

131.03.04 (Rule 104.) Particulate Matter from Materials Handling, Construction, and Roads.

.001. GEOGRAPHIC AREAS OF APPLICATION. Rules 131.03.04.002-.005 shall apply only to sources in areas designated as non-attainment for total suspended particulate in accordance with Section 107 of the Federal Clean Air Act of 1977 to the extent needed to provide for the attainment of the National Ambient Air Quality Standards.

.002. FINES HANDLING. No person may cause, suffer, allow or permit any material except for abrasive material for snow and ice control, to be handled, transported, or stored without taking at least the following precautions to prevent particulate matter from becoming airborne:

(a) Application of Water or suitable chemicals or some other covering on materials stockpiles, and other surfaces which can create airborne dusts under normal conditions;

(b) Installation and use of hoods, fans and filters to enclose, collect, and clean the emissions of dusty materials;

(c) Covering at all times, when in motion, of open-bodied trucks, trailers, or railroad cars transporting materials which can create airborne particulate matter in areas where the general public has access. Suitable wetting may be used as an alternative to covering in all areas except the city of El Paso.

.003. CONSTRUCTION AND DEMOLITION. No person may cause, suffer, allow or permit a structure, road, street or alley, to be constructed, altered, repaired or demolished without taking at least the following precautions to prevent particulate matter from becoming airborne:

(a) Use of water or of suitable oil or chemicals for control of dust in the demolition of structures, in construction operations, in work performed on a road, street, or alley, or in the clearing of land;

(b) Use of adequate methods to minimize airborne particulate matter during sandblasting of structures or similar operations.

.004. ROADS. No person may cause, suffer, allow or permit any public, industrial, commercial, or private road, street, or alley to be used without taking at least the following precautions to prevent particulate matter from becoming airborne:

(a) Application of asphalt, water, or suitable oil or chemicals on unpaved surfaces having more than 100 vehicle traversals daily, averaged on an annual basis, or more than 200 vehicle traversals daily, averaged on a monthly basis, whichever is the more stringent.

(b) Removal from paved surfaces, as necessary, of soil or other materials, except for sand applied for the specific purpose of snow or ice control.

.005. PARKING LOTS. No person may allow any vehicular parking surface having more than 20 parkings daily, averaged on a monthly basis, to be used unless dust is controlled by the appropriate application of asphalt, water, or suitable oil or chemicals. Parking surfaces having five spaces or less and parking surfaces at a property designed for and used exclusively as a private residence housing not more than three families are exempt from this rule.

131.03.05
(Rule 105.) Particulate Matter

.001 No person may cause, suffer, allow, or permit emissions of particulate matter from any source to exceed the allowable rates specified in Table 1 and/or Figure 1.

(a) If a source has an effective stack height less than the standard effective stack height as determined from Table 2 and/or Figure 2, the allowable emission level must be reduced by multiplying it by

$$\left[\frac{\text{Effective Stack Height}}{\text{Standard Effective Stack Height}}\right]^2$$

(b) Effective stack height shall be calculated by the following equation:

$$h_e + h + 0.083v_eD_e \left[1.5 + 0.82 \left(\frac{T_e - 550}{T_e} \right) D_e \right]$$

where:

h_e = Effective stack height in feet (ft)

h = Physical stack height above ground level in feet (ft)

v_e = Stack exit velocity in feet per second (ft/sec)

D_e = Stack exit inside diameter in feet (ft)

T_e = Stack exit temperature in degrees Rankin (°R)

.002 No person may cause, suffer, allow or permit emissions of particulate matter from a source or sources operated on a property or from multiple sources operated on contiguous properties to exceed any of the following net ground level concentrations.

(a) One hundred (100) micrograms per cubic meter ($\mu g/m^3$) of air sampled, averaged over any five (5) consecutive hours.

(b) Two hundred (200) micrograms per cubic meter ($\mu g/m^3$) of air sampled, averaged over any three (3) consecutive hours.

(c) Four hundred (400) micrograms per cubic meter ($\mu g/m^3$) of air sampled, averaged over any one (1) hour period.

.003 Rules 105.1 and 105.2 shall not apply to solid fossil fuel fired steam generators.

(a) No person may cause, suffer, allow, or permit emissions of particulate matter from any solid fossil fuel fired steam generator to exceed 0.3 lb. per million B.T.U. heat input.

131.03.06
(Rule 106.) Transient Operations.

.001 Rules 103 and 105 shall not apply to portable hot-mix asphaltic concrete plants, portable rock-crusher, and other transient operations engaged in public works projects which are not operated at the same premise for more than six months if all the following conditions are met:

(a) The plant is located at least one mile outside the nearest corporate limits of any city or town.

(b) The plant is located at least one mile from any occupied facility or recreational area other than that located on the same property as the plant.

(c) The plant is equipped with cyclones, or wet scrubbers, or water sprays at the material transfer points open to the atmosphere, or other equipment or systems approved by the Executive Secretary, properly installed, in good working order and in operation.

.002 The time requirement for Rule 106.1 may be extended by the Executive Secretary upon written request.

.003 All emissions from sources operating under provisions of Rule 106 shall be controlled so as not to permit or create a nuisance.

.004 Rule 106 shall not apply in Dallas or Harris Counties.

.005 Rule 106 shall not apply to portable hot-mix asphaltic concrete plants after December 31, 1974.

131.03.07
(Rule 107.) Agricultural Process.

.001 Rules 103, 104, 105 and 108 shall not apply to any person affected by Section 3.10 (e) of the Texas Clean Air Act.

.002 No person affected by Section 3.10 (e) of the Texas Clean Air Act may cause, suffer, allow, or permit emissions of particulate matter from any or all sources associated with a specific process to exceed the allowable levels specified in Table 3 and/or Figure 3, except as provided by Rule 107.3.

.003 Any person affected by Section 3.10 (e) of the Texas Clean Air Act who does not wish to be controlled by the process weight method, established by Rule 107.2, may select an alternate method of control which the Executive Secretary finds will provide emission control efficiency and measurement to achieve the same goal as Rule 107.2.

.004 Any person affected by Section 3.10 (e) of the Texas Clean Air Act who does not select an alternate method and notify the Executive Secretary, in writing, prior to any plant investigation by the staff of the Texas Air Control Board, shall be controlled by the process weight method established by Rule 107.2, unless the Executive Secretary, at his discretion, chooses to accept proposals for an alternate method at that time.

.005 Nothing herein is intended to affect the limitations on burning set out in Rule 101.

.006 Persons affected by Rule 107 shall be in compliance with the provisions set forth herein by February 15, 1973.

131.03.08. (Rule 108) COMPLIANCE.

.001. SUPERSEDED RULES. The provisions of amended rules 131.03.01.002, 131.03.03.002, 131.03.04.001-.005, and 131.03.08.001-.002 as amended supersede the provisions of these same numbered rules as contained in Regulation I which was adopted on January 26, 1972 and last amended on October 31, 1975.

.002. COMPLIANCE DATES. Except as noted below, all persons shall be in compliance with all provisions of Regulation I no later than the effective date of this rule.

(a) Persons affected by Rules 131.03.04.001-.005 shall be in compliance as soon as possible but no later than December 31, 1981.

(b) For areas which are designated as nonattainment for particulate after the effective date of this regulation in accordance with Section 107 of the Federal Clean Air Act, persons affected by Rules 131.03.04.001-.005 shall be in compliance as soon as possible but no later than two years after the date of designation.

TABLE I

ALLOWABLE PARTICULATE EMISSION RATES

FOR SPECIFIC FLOW RATES

Effluent Flow Rate acfm	Rate of Emission lb/hr
1,000	3.5
2,000	5.3
4,000	8.2
6,000	10.6
8,000	12.6
10,000	14.5
20,000	22.3
40,000	34.2
60,000	44.0
80,000	52.6
100,000	60.4
200,000	92.9
400,000	143.0
600,000	184.0
800,000	219.4
1,000,000	252.0

Interpolation and extrapolation of the data in this table shall be accomplished by the use of the equation $E=0.048\ q^{0.62}$ where E is the allowable emission rate in lb/hr and q is the stack effluent flow rate in acfm.

FIGURE 1

ALLOWABLE PARTICULATE EMISSION RATES

FOR SPECIFIC FLOW RATES

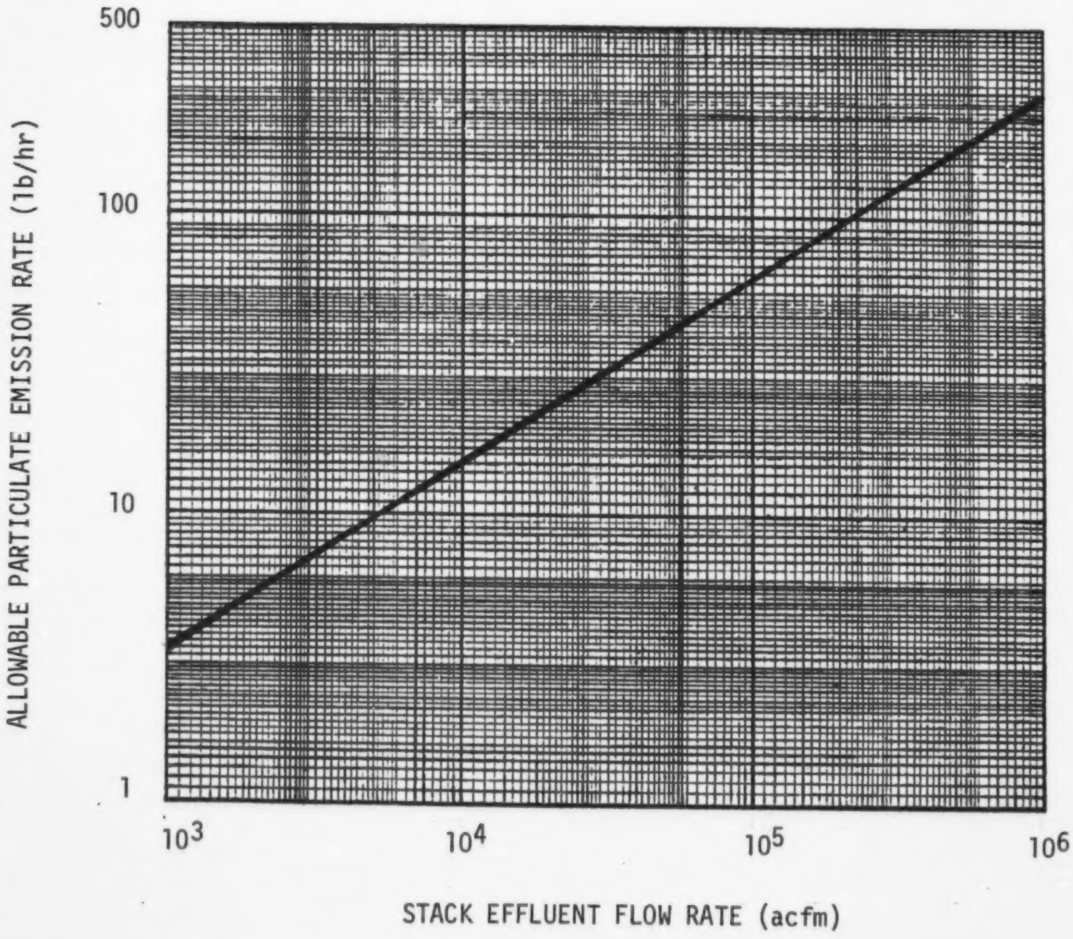


TABLE 2

STANDARD EFFECTIVE STACK HEIGHT BASED ON SPECIFIC FLOW RATES

Effluent Flow Rate acfm	Standard Effective Stack Height ft
1,000	12
2,000	15
4,000	19
6,000	22
8,000	24
10,000	26
20,000	34
40,000	43
60,000	49
80,000	55
100,000	59
200,000	75
400,000	96
600,000	110
800,000	122
1,000,000	132

Interpolation and extrapolation of the data in this Table shall be accomplished by the use of the equation $H_e = 1.05\ q^{0.35}$ where H_e is the standard effective stack height in feet and q is the stack effluent flow rate in acfm.

FIGURE 2

STANDARD EFFECTIVE STACK HEIGHT BASED ON SPECIFIC FLOW RATES

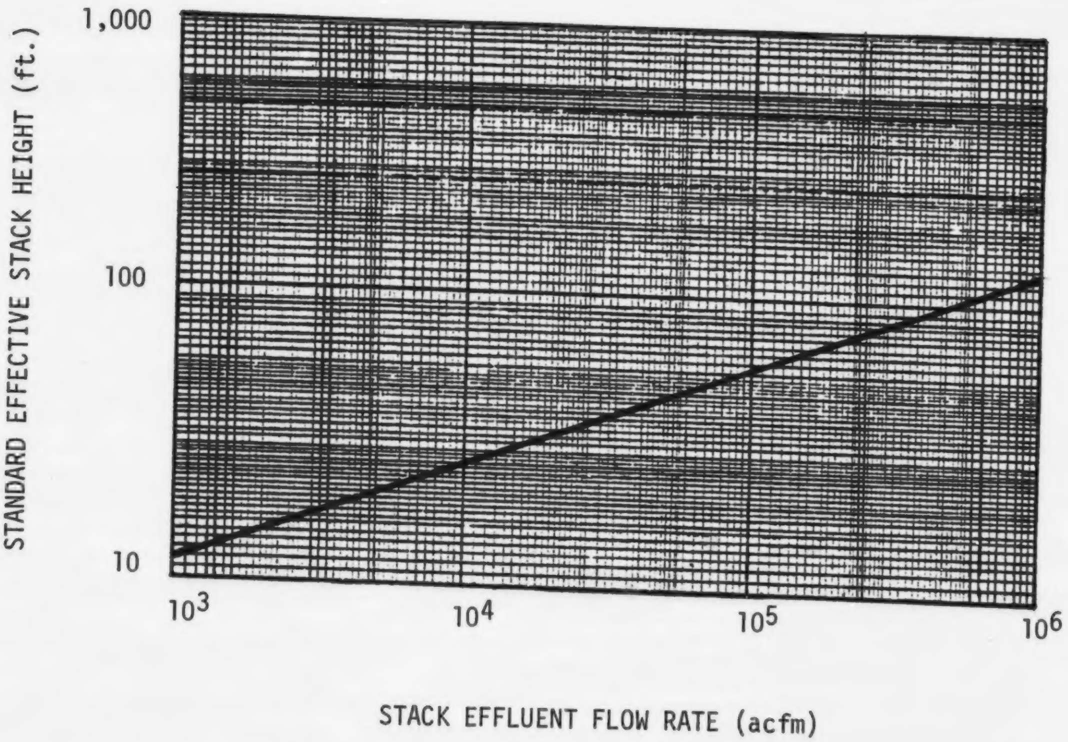


TABLE 3

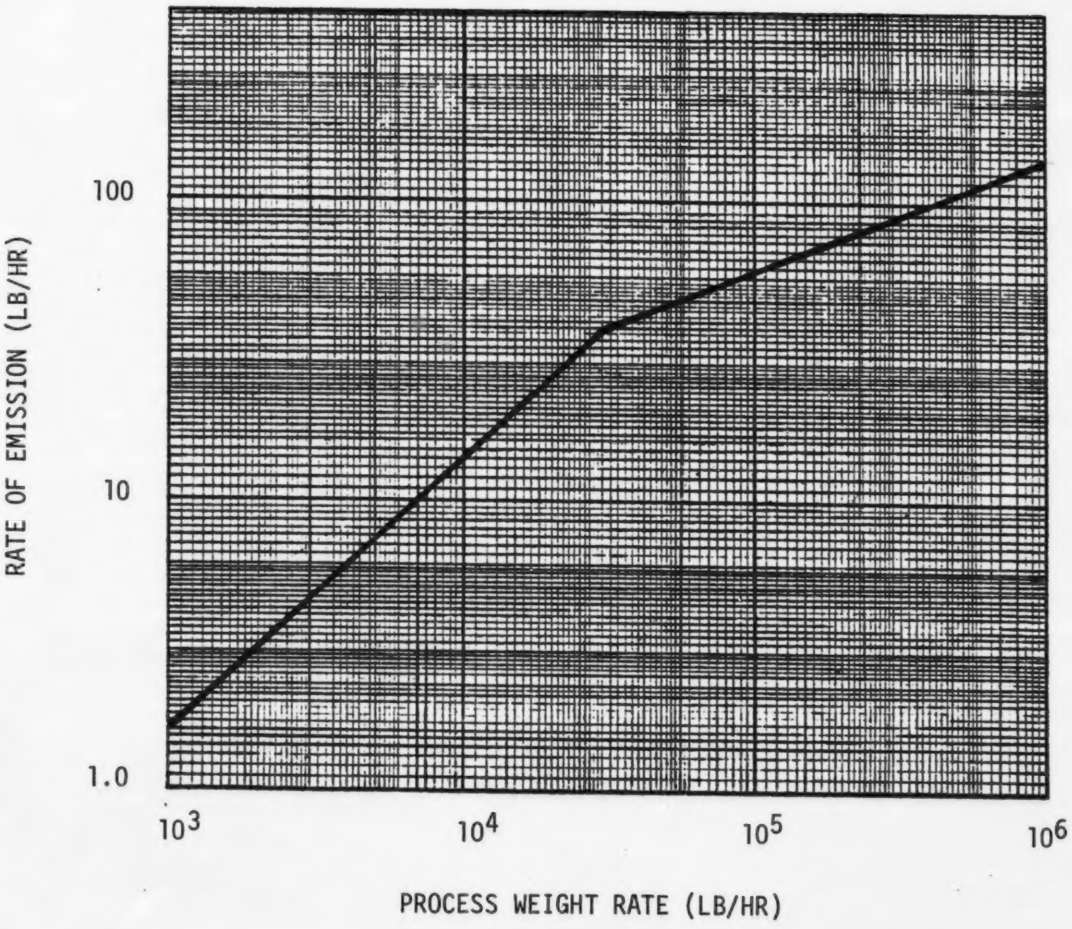
ALLOWABLE RATE OF EMISSION BASED ON PROCESS WEIGHT RATE

PROCESS WEIGHT RATE lb/hr	RATE OF EMISSION lb/hr	PROCESS WEIGHT RATE lb/hr	RATE OF EMISSION lb/hr
1,000	1.6	16,000	24.2
1,500	2.4	18,000	27.2
2,000	3.1	20,000	30.1
2,500	3.9	30,000	44.9
3,000	4.7	40,000	59.7
3,500	5.4	50,000	64.0
4,000	6.2	60,000	67.4
5,000	7.7	70,000	70.5
6,000	9.2	80,000	73.2
7,000	10.7	90,000	75.7
8,000	12.2	100,000	78.1
9,000	13.7	150,000	87.7
10,000	15.2	200,000	95.2
12,000	18.2	250,000	101.5
14,000	21.2	500,000	123.9

Interpolation of the data in this table for process weights up to 40,000 lb/hr shall be accomplished by the use of the equation $E = 3.12\ (p^{0.985})$, and interpolation and extrapolation of the data for process weight rates in excess of 40,000 lb/hr shall be accomplished by use of the equation $E = 25.4\ (p^{0.287})$ where E = rate of emission in pounds per hour and p = process weight rate in tons per hour.

FIGURE 3

ALLOWABLE PARTICULATE EMISSION LEVELS BASED ON
PROCESS WEIGHT RATE



REGULATION II

CONTROL OF AIR POLLUTION FROM SULFUR COMPOUNDS

131.04.01
(Rule 201.) Control of Sulfur Dioxide.

.001 No person may cause, suffer, allow, or permit emissions of sulfur dioxide from any sulfuric acid plant burning elemental sulfur to exceed the allowable rates specified in Table 4 and/or Curve A of Figure 4.

(a) If a source has an effective stack height less than the standard effective stack height as determined from Table 5 and/or Curve A of Figure 5, the allowable emission rates must be reduced by multiplying it by

$$\left[\frac{\text{Effective Stack Height}}{\text{Standard Effective Stack Height}}\right]^2$$

(b) Effective stack height shall be calculated by the following equation:

$$h_e = h + 0.083 v_e D_e \left[1.5 + 0.82 \left(\frac{T_e - 550}{T_e}\right) D_e\right]$$

where:

h_e = Effective stack height in feet (ft)

h = Physical stack height above ground level in feet (ft)

v_e = Stack exit velocity in feet per second (ft/sec)

D_e = Stack exit inside diameter in feet (ft)

T_e = Stack exit temperature in degrees Rankin (°R)

.002 No person may cause, suffer, allow, or permit emissions of sulfur dioxide from any sulfuric acid plant to exceed the allowable rates specified in Table 6 and/or Curve B of Figure 4.

(a) If a source has an effective stack height less than the standard effective stack height as determined from Table 7 and/or Curve B of Figure 5, the allowable emission rates must be reduced by multiplying it by

$$\left[\frac{\text{Effective Stack Height}}{\text{Standard Effective Stack Height}}\right]^2$$

(b) Effective stack height shall be calculated by the equation in Rule 201.12.

.003 No person may cause, suffer, allow, or permit emissions of sulfur dioxide from any sulfur recovery plant to exceed the allowable rates specified in Table 8 and/or Curve C of Figure 4.

(a) If a source has an effective stack height less than the standard effective stack height as determined from Table 9 and/or Curve D of Figure 5, the allowable emission rates must be reduced by multiplying it by:

$$\left[\frac{\text{Effective Stack Height}}{\text{Standard Effective Stack Height}}\right]^2$$

(b) Effective stack height shall be calculated by the equation in Rule 201.12.

.004 No person may cause, suffer, allow, or permit emissions of sulfur dioxide from nonferrous smelters to exceed 0.8% by volume of the total flue gas.

(a) If a source has an effective stack height less than the standard effective stack height as determined from Table 10 and/or Curve C of Figure 5, the allowable emission rates must be reduced by multiplying it by:

$$\left[\frac{\text{Effective Stack Height}}{\text{Standard Effective Stack Height}}\right]^2$$

(b) Effective stack height shall be calculated by the equation in Rule 201.12.

.005 No person may cause, suffer, allow, or permit emissions of sulfur dioxide from any solid fossil fuel fired steam generator to exceed 3.0 lb. per million B.T.U. heat input. New proven technology must be applied in removing sulfur dioxide from the emission from solid fuel fired steam generators when it becomes available.

.006 No person may cause, suffer, allow, or permit emissions of sulfur dioxide from any liquid fuel fired steam generator, furnace, or heater to exceed 440 ppm, by volume.

(a) If a source has an effective stack height less than the standard effective stack height as determined from Table 11 and/or Figure 6, the allowable emission concentration must be reduced by multiplying it by:

$$\left[\frac{\text{Effective Stack Height}}{\text{Standard Effective Stack Height}}\right]^2$$

(b) Effective stack height shall be calculated by the equation in Rule 201.12.

.007 No person in Galveston or Harris Counties may cause, suffer, allow, or permit emissions of sulfur dioxide from a source or sources operated on a property or multiple sources operated on contiguous properties to exceed a net ground level concentration of 0.28 ppm averaged over any 30-minute period.

.008 No person in Jefferson or Orange Counties may cause, suffer, allow, or permit emissions of sulfur dioxide from a source or sources operated on a property or multiple sources operated on contiguous properties to exceed a net ground level concentration of 0.32 ppm averaged over any 30-minute period.

.009 No person may cause, suffer, allow, or permit emissions of sulfur dioxide from a source or sources operated on a property or multiple sources operated on contiguous properties to exceed a net ground level concentration of 0.4 ppm averaged over any 30-minute period.

.010 Emission rates of sulfur dioxide from sources not regulated by Rules 201.1, 201.2, 201.3, 201.4, 201.5, and 201.6 may be set by the Executive Secretary as necessary to attain ambient air quality standards.

131.04.02
(Rule 202.) Persons affected by this regulation shall be in compliance with the provisions contained herein no later than December 31, 1973. Not later than six months after the effective date of this regulation, any person affected by this regulation shall submit to the Texas Air Control Board a written report on his compliance status, including but not limited to, the minimum time required to design, procure, install and test abatement equipment or procedures. Progress reports shall be submitted to the Board every four months commencing in August of 1972 until compliance is achieved.

All persons shall continue to be governed by the provisions of Regulation III which became effective on February 22, 1968, until December 31, 1973, at which time this regulation shall supercede the previous Regulation III.

TABLE 4

SULFURIC ACID PLANTS BURNING ELEMENTAL SULFUR ALLOWABLE SULFUR DIOXIDE EMISSION RATES FOR SPECIFIC FLOW RATES

EFFLUENT FLOW RATE scfm	RATE OF EMISSION lb/hr
1,000	19.8
2,000	39.6
4,000	79.2
6,000	119.0
8,000	158.0
10,000	198.0
20,000	396.0
40,000	792.0
60,000	1190.0
80,000	1580.0
100,000	1983.0

Interpolation and extrapolation of the data in this Table shall be accomplished by the use of the equation $E = 0.0198\ q$, where E is the allowable emission rate in lb/hr and q is the stack effluent flow rate in scfm.

FIGURE 4

ALLOWABLE SULFUR DIOXIDE EMISSION RATES

FOR SPECIFIC FLOW RATES

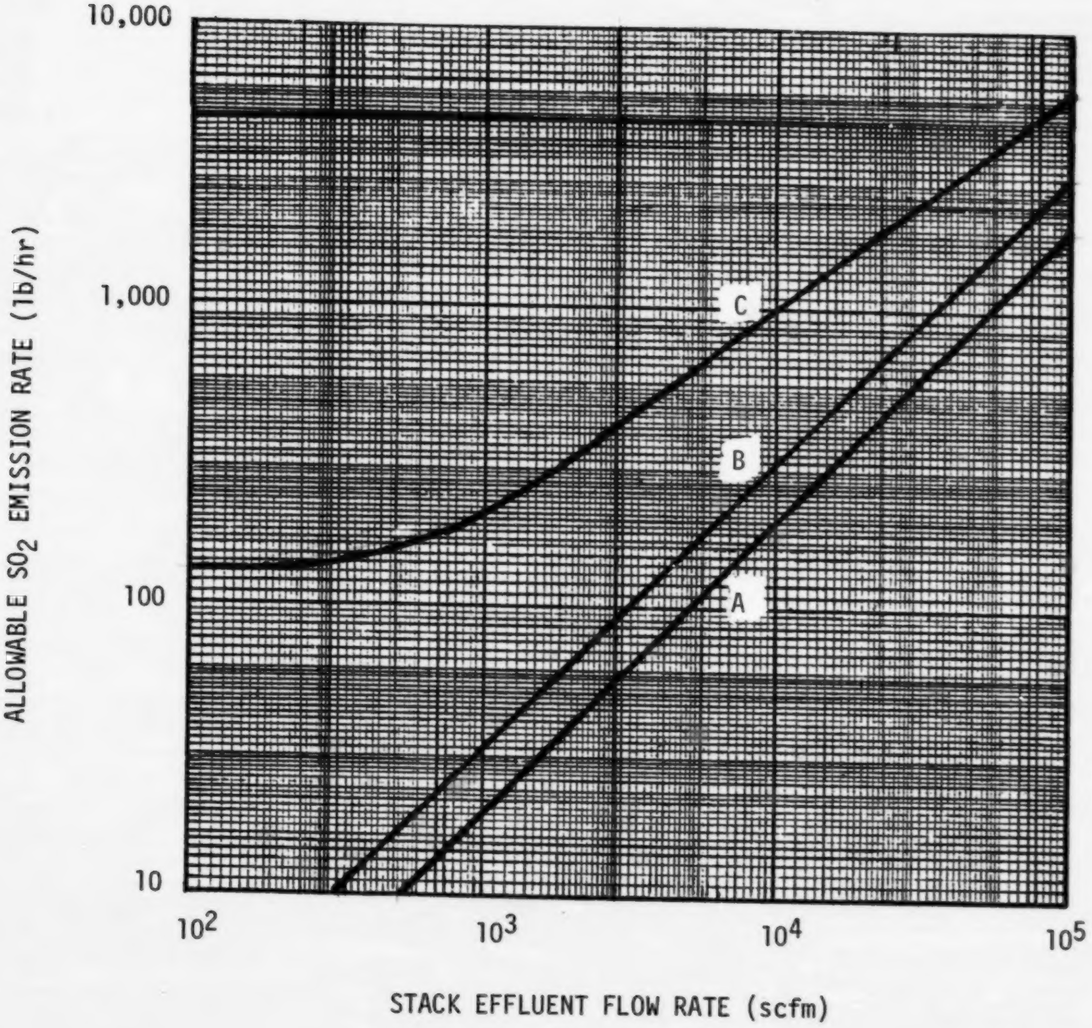


TABLE 5

SULFURIC ACID PLANTS BURNING ELEMENTAL SULFUR
STANDARD EFFECTIVE STACK HEIGHT
BASED ON SPECIFIC FLOW RATES

EFFLUENT FLOW RATE scfm	STANDARD EFFECTIVE STACK HEIGHT ft
1,000	28
2,000	40
4,000	56
6,000	69
8,000	79
10,000	89
20,000	125
40,000	177
60,000	217
80,000	250
100,000	280

Interpolation and extrapolation of the date in this Table shall be accomplished by the use of the equation $H_e = 0.885\ q^{0.5}$, where H_e is the standard effective stack height in ft. and q is the effluent flow rate in scfm.

FIGURE 5

STANDARD EFFECTIVE STACK HEIGHT
BASED ON SPECIFIC FLOW RATES

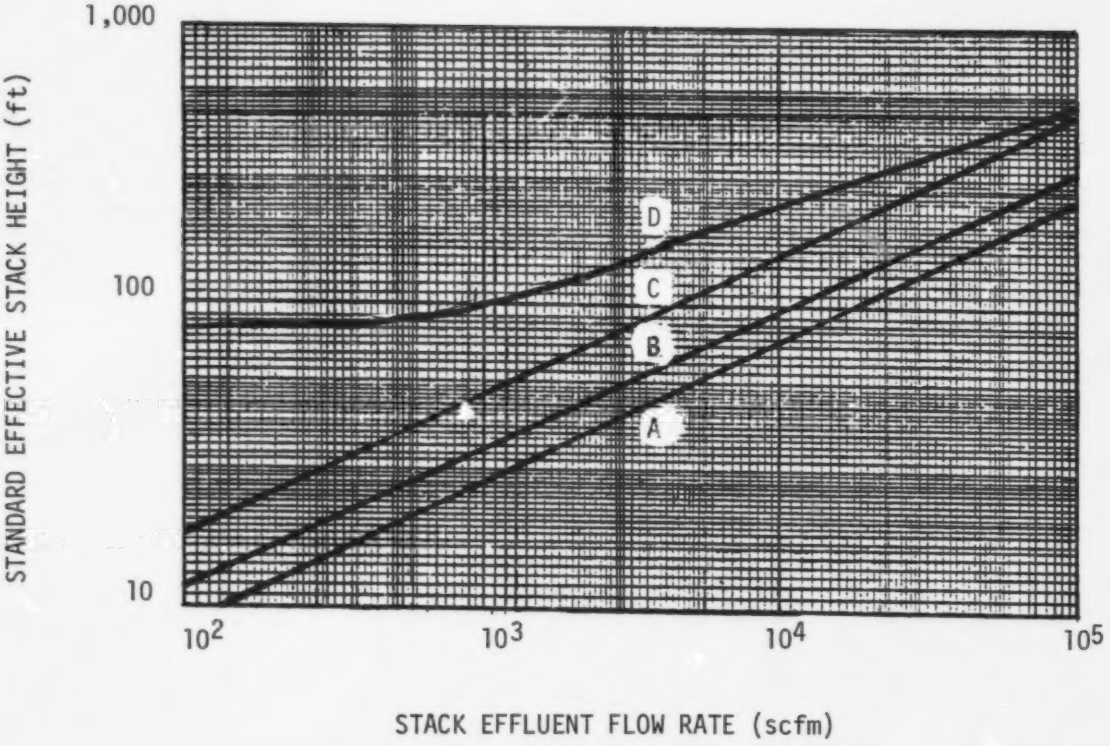


TABLE 6

SULFURIC ACID PLANTS BURNING OTHER THAN ELEMENTAL SULFUR
ALLOWABLE SULFUR DIOXIDE EMISSION RATES
FOR SPECIFIC FLOW RATES

EFFLUENT FLOW RATE scfm	RATE OF EMISSION lb/hr
1,000	34.7
2,000	69.4
4,000	138.8
6,000	208.2
8,000	277.6
10,000	347.0
20,000	694.0
40,000	1388.0
60,000	2082.0
80,000	2776.0
100,000	3470.0

Interpolation and extrapolation of the data in this Table shall be accomplished by the use of the equation $E = 0.0347\ q$, where E is the allowable emission rate in lb/hr and q is the stack effluent flow rate in scfm.

TABLE 7

SULFURIC ACID PLANTS BURNING OTHER THAN ELEMENTAL SULFUR
STANDARD EFFECTIVE STACK HEIGHT
BASED ON SPECIFIC FLOW RATES

EFFLUENT FLOW RATE scfm	STANDARD EFFECTIVE STACK HEIGHT ft
1,000	37
2,000	52
4,000	74
6,000	91
8,000	105
10,000	117
20,000	165
40,000	234
60,000	287
80,000	331
100,000	370

Interpolation and extrapolation of the data in this Table shall be accomplished by the use of the equation $H_e = 1.17\ q^{0.5}$, where H_e is the standard effective stack height in ft. and q is the stack effluent flow rate in scfm.

TABLE 8

SULFUR RECOVERY PLANTS

ALLOWABLE SULFUR DIOXIDE EMISSION RATES FOR SPECIFIC FLOW RATES

EFFLUENT FLOW RATE scfm	RATE OF EMISSION lb/hr
1,000	214
2,000	305
3,000	396
4,000	487
5,000	579
6,000	670
7,000	759
8,000	845
9,000	929
10,000	1012
20,000	1766
30,000	2447
40,000	3084
50,000	3690

Interpolation and extrapolation of the data in this Table for stack effluent flow rates less than or equal to 4,000 scfm shall be accomplished by the use of the equation $E = 123.4 + 0.091\ q$, where E is the allowable emission rate in lb/hr and q is the stack effluent flow rate in scfm. Interpolation and extrapolation of the data for stack effluent flow rates in excess of 4,000 scfm shall be accomplished by the use of the equation $E = 0.614\ q^{0.8042}$.

TABLE 9

SULFUR RECOVERY PLANTS

STANDARD EFFECTIVE STACK HEIGHT BASED ON SPECIFIC FLOW RATES

EFFLUENT FLOW RATE scfm	STANDARD EFFECTIVE STACK HEIGHT ft
100	85
500	96
1,000	109
2,000	129
3,000	148
4,000	164
5,000	178
6,000	192
7,000	204
8,000	215
9,000	226
10,000	236
20,000	311
30,000	366
40,000	411
50,000	450
60,000	484
80,000	544
100,000	595

Interpolation and extrapolation of the data for stack effluent flow rates less than or equal to 4,000 scfm shall be accomplished by the use of the equation $H_e = 7.4\ (123.4 + 0.091\ q\ )^{0.5}$, where H_e is the standard effective stack height in feet and q is the stack effluent flow rate in scfm. Interpolation and extrapolation of the data for stack effluent in excess of 4,000 scfm shall be accomplished by the use of the equation $H_e = 5.8\ q^{\ 0.402}$.

TABLE 10

NON FERROUS SMELTERS

STANDARD EFFECTIVE STACK HEIGHT BASED ON SPECIFIC FLOW RATES

EFFLUENT FLOW RATE scfm	STANDARD EFFECTIVE STACK HEIGHT ft
1,000	57
2,000	80
3,000	99
4,000	114
5,000	127
6,000	139
7,000	151
8,000	161
9,000	171
10,000	180
20,000	255
30,000	312
40,000	360
50,000	402

Interpolation and extrapolation of the data in this Table shall be accomplished by the use of the equation $H_e = 1.8\, q^{0.5}$, where H_e is the standard effective stack height in ft. and q is the stack effluent flow rate in scfm.

TABLE 11

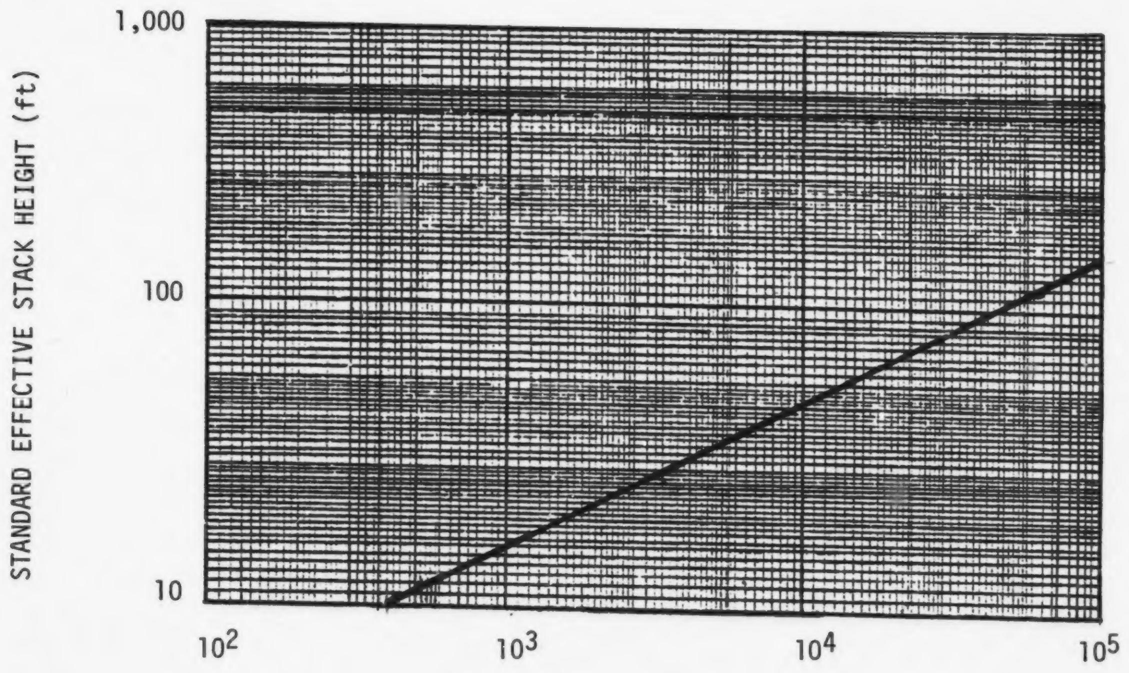
STEAM GENERATORS, BOILERS AND HEATERS BURNING LIQUID FUEL
STANDARD EFFECTIVE STACK HEIGHT
BASED ON SPECIFIC FLOW RATE

EFFLUENT FLOW RATE scfm	STANDARD EFFECTIVE STACK HEIGHT ft.
1,000	15
2,000	22
4,000	31
6,000	38
8,000	44
10,000	49
20,000	69
40,000	98
60,000	120
80,000	138
100,000	155

Interpolation and extrapolation of the data in this Table shall be accomplished by the use of the equation $H_e = 0.49\ q^{0.50}$, where H_e is the standard effective stack height in feet and q is the stack effluent flow rate in scfm.

FIGURE 6

STANDARD EFFECTIVE STACK HEIGHT
BASED ON SPECIFIC FLOW RATES



REGULATION IV

CONTROL OF AIR POLLUTION FROM MOTOR VEHICLES

131.06.00.001 Maintenance and operation of air pollution control systems or devices used to control emissions from motor vehicles.

(a) Any person owning or operating any motor vehicle or motor vehicle engine on which is installed or incorporated a system or device used to control emissions from the motor vehicle in compliance with federal motor vehicle rules shall maintain the system or device in good operable condition and shall use it at all times that the motor vehicle or motor vehicle engine is operated.

(b) No person may remove or make inoperable any system or device used to control emissions from a motor vehicle or motor vehicle engine or any part thereof, except where the purpose of removal of the system or device, or part thereof is to install another system or device, or part thereof which is intended to be equally effective in reducing atmospheric emissions from the vehicle.

(c) No person may sell in the state of Texas any motor vehicle which was originally equipped with a control or system in accordance with federal requirements unless all of the following conditions are met:

(1) The motor vehicle shall be equipped with either the control systems or devices that were a part of the motor vehicle engine when sold by the manufacturer in accordance with federal requirements or an alternate control system or device as designated in Rule 401.2.

(2) The control system or device required in 401.31 shall be in good operable condition.

(d) Any part or component of an air pollution control system or device of a motor vehicle or motor vehicle engine equipped with such air pollution control system or device in compliance with federal motor vehicle rules shall not be replaced with a different part or component unless such part or component is designated as a replacement for the specific make and model of the vehicle or vehicle engine.

131.06.00.002 This Regulation does not apply to motor vehicles or motor vehicle engines which are intended solely or primarily for use on a farm or ranch; or for legally sanctioned motor competitions; for research and development uses or for instruction in a bona fide vocational training program where the use of a system or device would be detrimental to the purposes for which the vehicle or engine is intended to be used.

131.06.00.003 The rules contained in this Regulation shall be in force immediately and shall supersede the previous Regulation IV of the Texas Air Control Board which became effective on March 5, 1972.

REGULATION V

Control of Air Pollution From Volatile Organic Compounds

COUNTIES IN OTHER THAN
OZONE NONATTAINMENT AREAS
131.07.01.101

.101. COUNTIES AFFECTED. Except for Sub-Chapter 131.07.06, the rules in Sub-Chapters 131.07.02-.09 shall apply only in the following counties: Aransas, Calhoun, Hardin, Matagorda, Montgomery, San Patricio and Travis. Sub-Chapter 131.07.06 shall apply only in Hardin, Matagorda, Montgomery, and San Patricio Counties.

STORAGE OF VOLATILE ORGANIC COMPOUNDS IN ARANSAS, CALHOUN, HARDIN MATAGORDA, MONTGOMERY, SAN PATRICIO AND TRAVIS COUNTIES

131.07.02.101-.103

.101. CONTAINERS OVER 25,000 GALLONS. No person shall place, store, or hold in any stationary tank, reservoir, or other container of more than 25,000 gallons (94,635 liters) nominal capacity any volatile organic compounds having a true vapor pressure equal to or greater than 1.5 psia (10.3 kPa) unless such tank, reservoir, or other container is a pressure tank capable of maintaining working pressure sufficient at all times to prevent vapor or gas loss to the atmosphere or is designed and equipped with one of the following vapor loss control devices:

(i) An internal or external floating roof (as defined in General Rules) which will rest on the surface of the liquid contents and is equipped with a closure seal or seals to close the space between the roof or cover and tank wall. There shall be no visible holes, tears, or other openings in the seal or seal fabric. This control equipment shall not be permitted if the volatile organic compounds have a true vapor pressure of 11.0 psia (75.8 kPa) or greater. All tank gauging and sampling devices shall be vapor-tight except when gauging or sampling is taking place.

(2) A vapor recovery system which reduces the emissions such that the true vapor pressure of all volatile organic compound vapors in vent gases to the atmosphere will not exceed a level of 1.5 psia (10.3 kPa).

.102. CONTAINERS OVER 1,000 GALLONS. No person shall place, store, or hold in any new stationary storage vessel which began construction after May 12, 1973 of more than 1,000 gallons (3785 liters) nominal capacity, any volatile organic compound having a true vapor pressure equal to or greater than 1.5 psia (10.3 kPa), unless such vessel is equipped with a permanent submerged fill pipe or is a pressure tank as described in the preceding rule (131.07.02.101) or is fitted with a vapor recovery system as described in Section (2) of that rule.

.103. EXEMPTIONS.

(a) Crude oil or condensate storage containers are exempt from the above rules (131.07.02.101-.102).

(b) Slotted sampling and gauge pipes installed in any floating-roof storage tank are exempt from the first rule (131.07.02.101).

VOLATILE ORGANIC COMPOUNDS LOADING AND UNLOADING FACILITIES IN ARANSAS, CALHOUN, HARDIN, MATAGORDA, MONTGOMERY, SAN PATRICIO AND TRAVIS COUNTIES

131.07.03.101-.102

.101. THROUGHPUT AND CONTROL REQUIREMENTS. No person shall permit the loading or unloading to or from any loading facility having 20,000 gallons (75,708 liters) or more throughput per day of volatile organic compounds having a true vapor pressure equal to or greater than 1.5 psia (10.3 kPa) averaged over any consecutive 30-day period, unless such facility is equipped with a vapor recovery system which reduces the emissions such that the true vapor pressure of all volatile organic compound vapors in vent gases to the atmosphere will not exceed a level of 1.5 psia (10.3 kPa).

When loading or unloading is effected through the hatches of a tank truck or trailer or railroad tank car with a loading arm equipped with a vapor collecting adaptor, then pneumatic, hydraulic, or other mechanical means shall be provided to force a vapor-tight seal between the adaptor and the hatch. A means shall be provided to prevent liquid drainage from the loading device when it is removed from the hatch of any tank truck, trailer or railroad tank car, or accomplish complete drainage before such removal. When loading or unloading is effected through means other than hatches, all loading and vapor lines shall be equipped with fittings which make vapor-tight connections and which close automatically when disconnected or shall be equipped to permit residual volatile organic compounds in the loading line to discharge into a recovery or disposal system after loading is complete. All gauging and sampling devices shall be vapor-tight except for necessary gauging and sampling.

.102. EXEMPTIONS. All loading or unloading facilities for crude oil or condensate, for ships and barges, and for facilities loading or unloading only liquified petroleum gas (regulated by the Safety Rules of the Liquified Petroleum Gas Division of the Texas Railroad Commission) are exempt from the above rule (131.03.101.).

VOLATILE ORGANIC COMPOUND-WATER SEPARATION IN ARANSAS, CALHOUN, HARDIN, MATAGORDA, MONTGOMERY, SAN PATRICIO AND TRAVIS COUNTIES

131.07.04.101-.102

.101 REQUIRED CONTROL DEVICES. No person shall use any compartment of any single or multiple compartment volatile organic compound-water separator which compartment receives 200 gallons (757 liters) or more of volatile organic compounds a day having a true vapor pressure equal to or greater than 1.5 psia (10.3 kPa) from any equipment which is processing, refining, treating, storing or handling volatile organic compounds unless such compartment is controlled in one of the following ways.

(1) The compartment has all openings sealed and totally encloses the liquid contents. All gauging and sampling devices shall be vapor-tight except when gauging or sampling is taking place.

(2) The compartment is equipped with a floating roof or internal floating cover which will rest on the surface of the contents and be equipped with a closure seal or seals to close the space between the roof or cover edge and tank wall. All gauging and sampling devices shall be vapor-tight except when gauging or sampling is taking place.

(3) The compartment is equipped with a vapor recovery

system which reduces the emissions such that the true vapor pressure of the volatile organic compound in vent gases to the atmosphere will not exceed a level of 1.5 psia (10.3 kPa).

.102. EXEMPTIONS. Volatile organic compound-water separators used exclusively in conjunction with the production of crude oil or condensate are exempt from the above rule (131.07.04.101.)

VENT-GAS CONTROL IN
ARANSAS, CALHOUN, HARDIN,
MATAGORDA, MONTGOMERY, SAN PATRICIO
AND TRAVIS COUNTIES
131.07.05.101-.106

.101. ETHYLENE. No person shall emit more than 1.1 pounds of ethylene per 1,000 pounds of low-density polyethylene plant product (1.1 kg/1000 kg) from all vent-gas streams associated with the formation, handling and storage of solidified product unless the vent-gas streams are burned at a temperature equal to or greater than 1300°F (704°C) in a smokeless flare or a direct-flame incinerator, or are controlled by an approved substantially equivalent alternate method.

.102. GENERAL VENT GAS STREAMS. Except for process vent-gas streams affected by the above rule (131.07.05.101), no person shall emit a vent-gas stream from any process vent containing one or more of the specific volatile organic compounds listed in Section (1) of this rule or one or more compounds which are members of one or more of the classes of volatile organic compounds listed in Section (2) of this rule unless the vent-gas stream is burned properly at a temperature equal to or greater than 1300°F (704°C) in a smokeless flare or a direct-flame incinerator before it is allowed to enter the atmosphere; alternate means of control may be approved by the Executive Director in accordance with Rule 131.07.07.101.

(1) Emission of the following specific volatile organic compounds shall be regulated under Rule 131.07.05.102:

- Ethylene
- Butadiene
- Isobutylene
- Styrene
- Isoprene
- Propylene
- α-Methyl-Sytrene

(2) Emissions of the following classes of volatile organic compounds shall be regulated under Rule 131.07.05.102:

- Aldehydes
- Alcohols
- Aromatics
- Ethers
- Olefins
- Peroxides
- Amines
- Acids
- Esters
- Ketones
- Sulfides
- Branched chain hydrocarbons (C^8 and above)

(3) The following vent gas streams are exempt from the requirements of this rule (131.07.05.102):

(A) A vent-gas stream having a combined weight of the volatile organic compounds or classes of compounds specified in Sections (1) and (2) of this rule equal to or less than 100 pounds (45 kg) in any consecutive 24-hour period.

(B) A vent-gas stream having a combined weight of the volatile organic compounds or classes of compounds specified in Sections (1) and (2) of this rule greater than 100 pounds (45 kg) in any consecutive 24-hour period but less than 250 pounds (113 kg) per hour averaged over any consecutive 24-hour period and having a true vapor pressure of the volatile organic compounds specified in Sections (1) and (2) of this rule less than 0.44 psia (3.0 kPa).

.103. VENT-GAS STREAMS FROM CATALYST REGENERATION, BASIC OXYGEN FURNACE, AND FLUID COKING UNITS. No person shall emit in any one calendar year more than 5 tons (4536 kg) of total volatile organic compounds in a vent-gas stream from any catalyst regeneration of a petroleum or chemical process system, basic oxygen furnace, or fluid-coking unit into the atmosphere unless the vent-gas stream is properly burned at a temperature equal to or greater than 1300°F (704°C) in a direct-flame incinerator or boiler.

.104. VENT GAS FROM IRON CUPOLAS. No person shall emit a vent-gas stream from any iron cupola into the atmosphere unless the vent-gas stream is properly burned at a temperature equal to or greater than 1300°F (704°C) in an afterburner having a retention time of at least one-fourth (1/4) of a second, and having a steady flame that is not affected by the cupola charge and relights automatically if extinguished.

.105. VENT GAS FROM BLAST FURNACES. Vent-gas streams from blast furnaces shall be properly burned in a smokeless flare or be used in one or more of the following ways:

(1) To preheat the blast air before injection into the furnace through the tuyeres;

(2) For steam generation;

(3) For the heating of soaking pits;

(4) For the underfiring of coke ovens;

(5) For other miscellaneous heating uses.

.106. ALTERNATE VENT-GAS CONTROL. Rules 131.07.05.101-.105 are not intended to require incineration as an exclusive method of control. In no event shall a vent-gas stream be incinerated if this will have no practical effect in reducing the emission of air contaminants or will result in an actual degradation of air quality. In all such cases, application shall be made to the Executive Director for approval of an alternate method of control. The Executive Director shall approve such alternate method if it represents the best available alternative having due regard for the intent of this sub-chapter (131.07.05) and the effect of the emissions on ambient air quality.

STORAGE OF CRUDE OIL OR CONDENSATE IN HARDIN, MATAGORDA, MONTGOMERY, AND SAN PATRICIO COUNTIES

131.07.06.101-.102

.101 REQUIRED CONTROL DEVICES. No person shall place, store or hold in any stationary tank, reservoir or other container of more than 420,000 gallons (1,589,873 liters) nominal capacity crude oil or condensate having a true vapor pressure equal to or greater than 1.5 psia (10.3 kPa) unless such tank, reservoir, or other container is a pressure tank capable of maintaining working pressures sufficient at all times to prevent vapor or gas loss to the atmosphere or is equipped with one of the following vapor-loss control devices, properly maintained and operated:

(1) An internal or external roof (as defined in the General Rules) which will rest on the surface of the liquid contents and is equipped with a closure seal or seals to close the space between the roof or cover edge and tank wall. This control equipment shall not be permitted if the volatile organic compounds have a true vapor pressure of 11.0 psia (75.8 kPa) or greater. All tank gauging and sampling devices shall be vapor-tight except when gauging or sampling is taking place.

(2) A vapor recovery system which reduces the emissions such that the true vapor pressure of all non-methane volatile organic compound vapors in vent gases emitted to the atmosphere will not exceed a level of 1.5 psia (10.3 kPa).

.102. EXEMPTIONS. Slotted sampling and gauge pipes installed in any floating roof storage tank are exempt from the above rule (131.07.06.101).

ALTERNATE MEANS OF CONTROL IN ARANSAS, CALHOUN, HARDIN, MATAGORDA, MONTGOMERY, SAN PATRICIO, AND TRAVIS COUNTIES

131.07.07.101

.101. PROCEDURE. Any person affected by any control requirement of Sub-Chapters 131.07.01-.09 may request the Executive Director to approve alternate means of control. The Executive Director shall approve such alternate means of control if it can be demonstrated that such control will be substantially equivalent to the methods of control approved by Regulation V.

ARANSAS, CALHOUN, HARDIN, MATAGORDA, MONTGOMERY, SAN PATRICIO, AND TRAVIS COUNTIES
131.07.08.101

.101. EXEMPTION QUALIFICATION. The Executive Director, after consultation with appropriate local governmental agencies, may exempt a specific compound or a specific vent-gas stream from the application of Regulation V if it can be demonstrated that the emissions from the compound or specific vent-gas stream will not make a significant contribution to air contaminants in the atmosphere.

COMPLIANCE IN ARANSAS, CALHOUN, HARDIN, MATAGORDA, MONTGOMERY, SAN PATRICIO, AND TRAVIS COUNTIES

131.07.09.101

.101. COMPLIANCE SCHEDULE AND COUNTIES. Except for the following, all persons shall be in compliance with Sub-Chapters 131.07.01-.08 on the effective date of this superseding Regulation, which replaces Regulation V as adopted on April 10, 1973, and last modified on December 10, 1976:

(1) All persons in Hardin County shall be in compliance with these sub-chapters as soon as practicable, but no later than February 29, 1980.

(2) All persons affected by Sub-Chapter 131.07.06 shall be in compliance with it as soon as practicable, but no later than February 29, 1980.

STORAGE OF VOLATILE ORGANIC COMPOUNDS IN OZONE NONATTAINMENT AREAS
131.07.51.101-.105

.101. REQUIRED CONTROL DEVICES. No person shall place, store, or hold in any stationary tank, reservoir, or other container any volatile organic compound (VOC) unless such container is capable of maintaining working pressure sufficient at all times to prevent any vapor or gas loss to the atmosphere, or is equipped with one or more of the approved alternate control devices (defined in General Rules) specified in Table I (for VOC other than crude oil and condensate) or Table II (for crude oil and condensate), or any other control device which will provide substantially equivalent control and is approved by the Executive Director.

TABLE I

APPROVED ALTERNATE CONTROL DEVICES FOR VOC OTHER THAN CRUDE OIL AND CONDENSATE

True Vapor Pressure of Stored Compound	Nominal Storage Capacity	Emission Control Options
Less than 1.5 psia (10.3 kPa)	No Requirement	No Requirement
1.5 psia (10.3 kPa) or greater and less than 11 psia (75.8 kPa)	Greater than 1000 gallons (3785 liters)	Submerged fill pipe, or vapor recovery system
	Greater than 25,000 gallons (94,635 liters)	Submerged fill pipe and internal floating roof, external floating roof with single or double seal or vapor recovery system.

TABLE I - Continued

True Vapor Pressure of Stored Compound	Nominal Storage Capacity	Emission Control Options
11 psia (75.8 kPa) or greater	Greater than 1000 gallons (3785 liters)	Submerged fill pipe, or vapor recovery system
	Greater than 25,000 gallons (94,635 liters)	Submerged fill pipe and vapor recovery system

TABLE II

APPROVED ALTERNATE CONTROL DEVICES FOR CRUDE OIL AND CONDENSATE

True Vapor Pressure of Stored Compound	Nominal Storage Capacity	Emission Control Options
Less than 1.5 psia (10.3 kPa)	No Requirement	No Requirement
1.5 psia (10.3 kPa) or greater and less than 11 psia (75.8	Greater than 1000 gallons (3785 liters)	Submerged fill pipe, or vapor recovery system
	Greater than 42,000 gallons (158,987 liters)	Submerged fill pipe and internal floating roof, external floating roof with single or double seal, or vapor recovery system.

TABLE II - Continued

True Vapor Pressure of Stored Compound	Nominal Storage Capacity	Emission Control Options
11psia (75.8 kPa) or greater	Greater than 1000 gallons (3785 liters)	Submerged fill pipe, or vapor recovery system
	Greater than 42,000 gallons (158,987 liters)	Submerged fill pipe and vapor recovery system

.102. FLOATING ROOF STORAGE TANK REQUIREMENTS. For those storage tanks subject to the provision of the above rule (131.07.51.101), the following requirements shall apply:

(1) All openings in an internal or external floating roof except for automatic bleeder vents and rim space vents must provide a projection below the liquid surface or be equipped with a cover, seal, or lid. Any cover, seal, or lid must be in a closed (i.e., no visible gap) position at all times except when the device is in actual use.

(2) Automatic bleeder vents are to be closed at all times except when the roof is floated off or landed on the roof leg supports.

(3) Rim vents, if provided, are to be set to open only when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting.

(4.) Any emergency roof drain must be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(5) There shall be no visible holes, tears, or other openings in the seal or seal fabric.

.103 Reserved.

.104. EXEMPTIONS.

(a) Crude oil and condensate, prior to custody transfer, are exempt from the first rule (131.07.51.101) if stored in tanks with a nominal capacity less than 210,000 gallons (794,936 liters).

(b) Slotted sampling and gauge pipes installed or approved for installation in any floating roof storage tank are exempt from the second rule (131.07.51.102).

(c) Storage containers which have a capacity of less than 25,000 gallons (94,635 liters) located at motor vehicle fuel dispensing facilities are exempt from the requirements of these rules (131.07.51.101-.105).

.105. COMPLIANCE SCHEDULE AND COUNTIES. The provisions of this sub-chapter shall appy to Bexar, Brazoria, Dallas, Ector, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria counties. All affected persons shall submit a final control plan for compliance no later than

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December 31, 1979 and persons shall be in compliance as soon as particable, but no later than December 31, 1982, with the following exception. Tanks greater than 420,000 gallons (1,589,873 liters) nomical capacity containing crude oil or condensate with a true vapor pressure equal to or greater than 1.5 psia (10.3 kPa) in Brazoria, Dallas, El Paso, Galveston, Harris, Jefferson, Nueces, Orange, and Tarrant Counties shall be in compliance with requirements for external floating roofs, internal floating roofs or vapor recovery systems by February 29, 1980.

FACILITIES FOR LOADING AND UNLOADING OF VOLATILE ORGANIC COMPOUNDS IN OZONE NONATTAINMENT AREAS
131.07.52.101-.104

.101. THROUGHPUT AND CONTROL REQUIREMENTS. No person shall permit the loading or unloading to or from any facility having 20,000 gallons (75,708 liters) or more throughput per day (averaged over any consecutive 30-day period) of volatile organic compounds with a true vapor pressure equal to or greater than 1.5 psia (10.3 kPa) under actual conditions, unless the following emission control requirements are met by the dates specified in Rule 131.07.52.104:

(1) Volatile organic compound vapors from loading and unloading facilities other than gasoline terminals shall be processed by a vapor recovery system as defined in the General Rules.

(2) Volatile organic compound vapors from gasoline terminals shall be reduced to a level not to exceed 0.67 pounds of volatile organic compounds per 1000 gallons (80 mg/liter) of gasoline transferred. Prior to December 31, 1982, affected gasoline terminals other than those located in Ector or Gregg Counties shall remain in compliance with Section (1) of this rule.

(3) When loading or unloading is effected through the hatches of a tank truck or trailer or railroad tank car

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(2) Storage tanks equipped with external floating roofs, internal floating roofs, or their equivalent.

(3) Stationary containers of nominal capacity less than 2,000 gallons (7570 liters) if installed before December 10, 1976.

(4) Stationary storage tanks located at a facility which dispenses less than 120,000 gallons of gasoline per year.

.105. COMPLIANCE SCHEDULE AND COUNTIES: The provisions of this sub-chapter shall apply in Bexar, Brazoria, Dallas, El Paso, Galveston, Harris, Jefferson, Nueces, Orange, Tarrant, and Travis Counties.

(1) All affected persons in Bexar, Brazoria, Galveston and Harris Counties shall be in compliance by August 31, 1978, except for the vent-line restriction requirement of Rule 131.07.54.102(4), for which compliance is extended to December 31, 1981.

(2) All affected persons in Dallas, El Paso, Jefferson, Nueces, Orange, Tarrant, and Travis Counties shall be in compliance as soon as practicable but no later than February 29, 1980, except for the vent-line restriction requirement of Rule 131.07.54.102(4) for which compliance is extended to December 31, 1981.

VOLATILE ORGANIC COMPOUND-WATER SEPARATION IN OZONE NONATTAINMENT AREAS
131.07.55.101-.106

.101. FACILITIES OTHER THAN PETROLEUM REFINERIES. No person shall use any compartment of any single or multiple compartment volatile carbon compound-water separator which compartment receives 200 gallons (757 liters) or more of volatile organic compounds a day having a true vapor pressure equal to or greater than 1.5 psia (10.3 kPa) from any equipment in a facility other than a petroleum refinery which is processing, treating, storing, or handling volatile organic compounds unless such compartment is controlled in one of the following ways:

(1) The compartment has all openings sealed and totally encloses the liquid contents. All gauging and sampling devices shall be vapor-tight except when gauging or sampling is taking place.

(2) The compartment is equipped with a floating roof or internal floating cover which will rest on the surface of the contents and be equipped with a closure seal or seals to close the space between the roof edge and tank wall. All gauging and sampling devices shall be vapor-tight except during gauging or sampling.

(3) The compartment is equipped with a vapor recovery system which reduces the emissions such that the true vapor pressure of the volatile organic compound vapors in vent gases to the atmosphere will not exceed a level of 1.5 psia (10.3 kPa).

.102. Reserved.

.103. PETROLEUM REFINERIES. No person shall use any compartment of any single or multiple compartment volatile carbon compound-water separator which compartment receives 200 gallons (757 liters) or more of volatile organic compounds a day having a true vapor pressure of 0.5 psia (3.4 kPa) or greater from any equipment in a petroleum refinery which is processing, refining, treating, storing, or handling volatile organic compounds unless such compartment is controlled in one of the following ways:

(1) The compartment has all openings sealed and totally encloses the liquid contents. All gauging and sampling devices shall be vapor-tight except during gauging or sampling.

(2) The compartment is equipped with a floating roof or internal floating cover which will rest on the surface of the contents and be equipped with a closure seal or seals to close the space between the roof or cover and the tank

wall. All gauging and sampling devices shall be vapor-tight except during gauging or sampling.

.104. Reserved.

.105. EXEMPTIONS. Volatile Organic compound water separators used exclusively in conjunction with the production of crude oil or condensate are exempt from Rules 131.07.55.101 and .103.

.106. COMPLIANCE SCHEDULE AND COUNTIES. All persons in the counties shown below will be in compliance with this subchapter as soon as practicable, but no later than the dates shown.

Rule	Counties Where Rule is Applicable	Final Compliance Date	Final Control Plan Submittal Date
131.07.55.101	Bexar, Brazoria, Dallas, El Paso Galveston, Harris, Jefferson, Nueces, Orange, Victoria	December 31, 1973	Previously Submitted
	Tarrant	February 29, 1980	Previously Submitted
131.07.55.103	Bexar, Brazoria Dallas, Ector, El Paso, Galveston Gregg, Harris Jefferson, Nueces Orange, Tarrant, and Victoria	December 31, 1982	December 31, 1979

PROCESS UNIT TURNAROUND AND VACUUM-PRODUCING SYSTEMS IN PETROLEUM REFINERIES IN OZONE NONATTAINMENT AREAS
131.07.56.101-.104

.101. PROCESS UNIT TURNAROUND. Volatile organic compound emissions from petroleum refineries shall be controlled during process unit shutdown or turnaround with the following procedure:

(1) Recover all pumpable or drainable liquid to storage.

(2) Reduce vessel gas pressure to 5 psig (34.5 kPa) or less by recovery or combustion before venting to the atmosphere.

.102. VACUUM-PRODUCING SYSTEMS.

(a) No person shall emit more than 100 pounds (45 kg) in any consecutive 24-hour period of any volatile organic compound from a steam ejector or mechanical vacuum pump in a petroleum refinery unless the vent stream is burned at a temperature equal to or greater than 1300°F (704°C) in a smokeless flare or a direct-flame incinerator, or is controlled by an approved substantially equivalent alternate method.

(b) No person shall emit more than 100 pounds (45 kg) in any consecutive 24-hour period of any volatile organic compound from a hotwell with a contact condenser unless the hotwell is covered and the vapors from the hotwell are burned at a temperature equal to or greater than 1300° (704°C) in a smokeless flare or a direct-flame incinerator, or are controlled by an approved substantially equivalent alternate method.

.103. Reserved

.104. COMPLIANCE SCHEDULE AND COUNTIES. The provisions of this sub-chapter shall apply to Bexar, Brazoria, Dallas, Ector, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties. All affected persons therein shall be in compliance with this sub-chapter as soon as practicable, but no later than December 31, 1982 and shall submit to the Texas Air Control Board a final control plan for compliance no later than December 31, 1979.

PROCESS UNIT TURNAROUND AND FUGITIVE EMISSION CONTROL IN CHEMICAL MANUFACTURING PLANTS IN OZONE NONATTAINMENT AREAS

131.07.57

.101-.103. Reserved.

VENT-GAS CONTROL IN OZONE NONATTAINMENT AREAS
131.07.58.101- .104

.101. ETHYLENE. No person shall emit more than 1.1 pounds of ethylene per 1000 pounds of low-density polyethylene plant product (1.1 kg/1000kg) from all vent-gas streams associated with the formation, handling and storage of solidified product unless the vent-gas streams are burned at a temperature equal to or greater than 1300°F (704°C) in a smokeless flare, a direct-flame incinerator, or are controlled by an approved substantially equivalent alternate method.

.102. GENERAL VENT-GAS STREAMS. Except for process vent-gas streams affected by the above rule (131.07.58.101), no person shall emit a vent-gas stream from any process vent containing one or more of the specific volatile organic compounds listed in Section (1) of this rule (131.07.58.102) or one or more compounds which are members of one or more of the classes of volatile organic compounds listed in Section (2) of this rule unless the vent-gas stream is burned properly at a temperature equal to or greater than 1300°F (704°C) in a smokeless flare or a direct-flame incinerator before it is allowed to enter the atmosphere; alternate means of control may be approved by the Executive Director in accordance with Sub-Chapter 131.07.61.

(1) Emission of the following specific volatile organic compounds shall be regulated under Rule 131.07.58.102:

- Ethylene
- Butadiene
- Isobutylene
- Styrene
- Isoprene
- Propylene
- ā-Methyl-Styrene

(2) Emission of the following classes of volatile organic compounds shall be regulated under Rule 13.07.58.102:

- Aldehydes
- Alcohols
- Aromatics
- Ethers
- Olefins
- Peroxides
- Amines
- Acids
- Esters
- Ketones
- Sulfides
- Branched chain hydrocarbons (C^8 and above)

(3) The following vent-gas streams are exempt from the requirements of this rule (131.07.58.102).

(A) A vent-gas stream having a combined weight of the volatile organic compounds or classes of compounds specified in Sections (1) and (2) of this rule equal to or less than 100 pounds (45 kg) in any consecutive 24-hour period.

(B) A vent-gas stream having a combined weight of the volatile organic compounds or classes of compounds specified in Sections (1) and (2) of this rule greater than 100 pounds (45 kg) in any consecutive 24-hour period but less than 250 pounds (113 kg) per hour averaged over any consecutive 24-hour period and having a true vapor pressure of the volatile organic compounds specified in 131.07.58.102(1) and 131.07.58.102(2) less than 0.44 psia (3.0 kPa).

.103. Reserved.

.104. COMPLIANCE SCHEDULE AND COUNTIES. The provisions of this sub-chapter shall apply in Bexar, Brazoria, Dallas, El Paso, Galveston, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties.

(1) All affected persons within Bexar, Brazoria, Dallas, El Paso, Galveston, Harris, Jefferson, Nueces, Orange, and Victoria Counties shall be in compliance with the above rules (131.07.58.101 and .102) by May 31, 1975.

(2) All affected persons in Tarrant County shall be in compliance with the above rules by February 29, 1980.

SPECIFIED SOLVENT-USING PROCESSES IN OZONE NONATTAINMENT AREAS
131.07.59.101-.106

.101. CUTBACK ASPHALT (as defined under specified solvent using processes in the General Rules). The use of cutback asphalt containing volatile organic compound solvents for the paving of roadways, driveways or parking lots is restricted to no more than 8 percent of the total annual volume averaged over a two-year period of asphalt used or specified for use by any state, municipal or county agency who uses or specifies the type of asphalt application.

.102. COLD SOLVENT CLEANING (as defined under specified solvent-using processes in the General Rules).

(a) No person shall operate or maintain a system utilizing a volatile organic compound for the cold cleaning of objects without a cover, a cleaned-parts drainage facility, and a permanent, conspicous label which summarizes the operating requirements.

(b) No person shall operate or maintain a system using a volatile organic compound for the cold cleaning of objects without complying with the following operating procedures:

(1) Waste solvent shall not be disposed of or transferred to another party such that greater

than 20 percent of the waste (by weight) can evaporate into the atmosphere. Waste solvents shall be stored only in covered containers.

(2) The degreaser cover shall be closed whenever parts are not being handled in the cleaner.

(3) Parts shall be drained for at least 15 seconds, or until dripping ceases.

.103. OPEN-TOP VAPOR DEGREASING (as defined under specified solvent-using processes in the General Rules).

(a) No person shall operate or maintain a system utilizing a volatile organic compound for the open-top vapor cleaning of objects without a cover that can be opened and closed easily without disturbing the vapor zone.

(b) No person shall operate or maintain a system using a volatile organic compound for the open-top vapor cleaning of objects without complying with the following operating procedures:

(1) The cover shall be closed at all times except when processing work loads through the degreaser.

(2) Parts shall be positioned so that maximum drainage is obtained.

(3) Parts shall be moved in and out of the degreaser at less than 11 ft/min (3.3 m/min).

(4) The work load shall be degreased in the vapor zone at least 30 seconds or until condensation ceases.

(5) Any pools of solvent on the cleaned parts shall be removed by tipping the part before withdrawing it.

(6) Parts shall be allowed to dry within the degreaser freeboard area for at least 15 seconds, or until visually dry.

(7) Porous or absorbent materials, such as cloth, leather, wood or rope, shall not be degreased.

(8) Work loads shall not occupy more than half of the degreaser open-top surface area.

(9) The vapor level shall not drop more than 4 inches (10 cm) below the bottom condenser coil when the work load enters or is removed from the vapor zone.

(10) Solvent shall not be sprayed above the vapor level.

(11) Solvent leaks shall be repaired immediately, or the degreaser shall be shut down.

(12) Waste solvent shall not be: 1) disposed of or 2) transferred to another party such that greater than 20 percent of the waste (by weight) will

evaporate into the atmosphere. Waste solvent shall be stored only in covered containers.

(13) Exhaust ventilation shall not exceed 65 cfm per ft^2 (20 m^3/min per m^2) of degreaser open area, unless necessary to meet Occupational Safety and Health Administration requirements. Ventilation fans or other sources of air agitation shall not be used near the degreaser opening.

(14) Water shall not be visibly detectable in the solvent exiting the water separator.

.104. CONVEYORIZED DEGREASING (as defined under specified solvent using processes in the General Rules). No person shall operate or maintain a system utilizing a volatile organic compound for the conveyorized cleaning of objects without complying with the following operating procedures:

(1) Exhaust ventilation shall not exceed 65 cfm per/ft^2 (20 m^3/min per m^3) of degreaser opening, unless necessary to meet Occupational Safety and Health Administration requirements. Ventilation fans shall not be used near the degreaser opening.

(2) Parts shall be positioned so that maximum drainage is obtained.

(3) Vertical conveyor speed shall be maintained at less than 11 ft/min (3.3 m/min).

(4) Waste solvent shall not be: 1) disposed of or 2) transferred to another party such that greater than 20 percent of the waste (by weight) can evaporate into the atmosphere. Waste solvent shall be stored only in covered containers.

(5) Leaks shall be repaired immediately or the degreaser shall be shut down.

(6) Water shall not be visibly detectable in the solvent exiting the water separator.

.105. COMPLIANCE SCHEDULE AND COUNTIES.

(a) The provisions of the first rule (131.07.59.101) shall apply only within Harris County. All affected persons shall be in compliance with the rule as soon as practicable, but no later than December 31, 1981 and shall submit a final control plan for compliance to the Texas Air Control Board no later than December 31, 1979.

(b) The provisions of the second, third and fourth rules (131.07.59.102, .103 and .104) shall apply only within Bexar, Brazoria, Dallas, Ector, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant and Victoria Counties. All affected persons shall be in compliance with these rules as soon as practicable, but no later than December 31, 1981 and shall submit a final control plan for compliance to the Texas Air Control Board no later than December 31, 1979.

.106. EXEMPTIONS.

(a) Any process using volatile organic solvent located in Bexar, Brazoria, Dallas, Ector, El Paso, Galveston, Gregg, Jefferson, Nueces, Orange, Tarrant or Victoria County which has a potential to emit a combined weight of volatile organic compounds less than 550 pounds (249 kg) in any consecutive 24-hour period is exempt from the provisions of the above rules (131.07.59.102-.104).

(b) Any process using volatile organic solvent located in Harris County which as a potential to emit a combined weight of volatile organic compounds less than 100 pounds (45 kg) in any consecutive 24-hour period is exempt from the provisions of the above rules (131.07.59.102-.104.

SURFACE COATING PROCESSES IN OZONE NONATTAINMENT AREAS
131.07.60.101-.104

.101. EMISSION LIMITATIONS. No person may cause, suffer, allow or permit volatile organic compound emissions from the surface coating processes (defined in the General Rules) affected by Sections (1) through (8) of this rule to exceed the specified emission limits, which are based on a daily weighted average.

(1) Large-Appliance Coating. Volatile organic compound emissions from the application, flashoff, and oven areas during the coating of large appliances (prime and topcoat, or single coat) shall not exceed 2.8 pounds per gallon of coating (minus water) applied (0.34 kg/liter).

(2) Furniture Coating. Volatile organic compound emissions from metal furniture coating lines (prime and topcoat, or single coat) shall not exceed 3.0 pounds per gallon of coating (minus water) applied (0.36 kg/liter).

(3) Coil Coating. Volatile organic compound emissions from the coating (prime and topcoat, or single coat) of metal coils shall not exceed 2.6 pounds per gallon of coating (minus water) applied (0.31 kg/liter).

(4) Paper Coating. Volatile organic compound emissions from the coating of paper (or specified tapes or films)

shall not exceed 2.9 pounds per gallon of coating (minus water) applied (0.35 kg/liter).

(5) Fabric Coating. Volatile organic compound emissions from the coating of fabric shall not exceed 2.9 pounds per gallon of coating (minus water) applied (0.35 kg/liter).

(6) Vinyl Coating. Volatile organic compound emissions from the coating of vinyl fabrics or sheets shall not exceed 3.8 pounds (minus water) per gallon of coating applied (0.45 kg/liter).

(7) Can Coating.

(A) On or before December 31, 1982, the following emission limits shall apply on the basis of solvent content (gallons of coating minus water).

Affected Operation	VOC Emission Limitation	
	Lbs Per Gal	KG Per Liter
Sheet basecoat (exterior and interior) and over-varnish	4.0	0.49
Two-piece can exterior (basecoat and over-varnish)	2.8	0.34
Two- and three-piece can interior body spray, two-piece can exterior end (spray or roll coat).	4.2	0.51

	VOC Emission Limitation	
Affected Operation	Lbs Per Gal	KG Per Liter
Three-piece can side-seam spray	5.5	0.66
End sealing compound	4.2	0.50

(B) After December 31, 1982, the following emission limits shall apply on the basis of solvent content (gallons of coating minus water).

	VOC Emission Limitation	
Affected Operation	Lbs Per Gal	KG Per Liter
Sheet basecoat (exterior and interior) and over-varnish	2.8	0.34
Two-piece can exterior (basecoat and over-varnish)	2.8	0.34
Two- and three-piece can interior body spray, two-piece can exterior end (spray or roll coat)	4.2	0.51
Three-piece can side-seam spray	5.5	0.66
End sealing compound	3.7	0.44

(8) Automobile and Light-Duty Truck Coating.

(A) On or before December 31, 1982, the following emission limits shall apply:

Operation (including application flashoff, and oven areas)	VOC Emission Limitation	
	Lbs Per Gal	Kg Per Liter
Prime application	1.2	0.15
Primer surfacer application	3.0	0.36
Topcoat application	5.0	0.60
Final repair application	6.5	0.78

(B) After December 31, 1982, the following emission limits shall apply:

Operation (including application, flashoff, and oven areas)	VOC Emission Limitation	
	Lbs Per Gal	Kg Per Liter
Prime application	1.2	0.15
Primer surfacer application	2.8	0.34
Topcoat application	2.8	0.34
Final repair application	4.8	0.58

.102. COMPLIANCE SCHEDULE AND COUNTIES.

(a) All affected persons within Bexar, Brazoria, Dallas, Ector, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties shall be in compliance with Sub-Chapter 131.07.60, except for Sub-Sections (7)(B) and (8)(B) of Rule 131.07.60.101 as soon as practicable, but no later than December 31, 1982, and shall submit to the Texas Air Control Board a final control plan for compliance no later than December 31, 1979.

(b) All affected persons within the counties listed in Section (a) of this rule shall be in compliance with Rule 131.07.60.101(7)(B) as soon as practicable, but no later than December 31, 1985, and shall submit to the Texas Air Control Board a final control plan for compliance no later than December 31, 1979.

(c) All affected persons within the counties listed in Section (a) of this rule shall be in compliance with Rule 131.07.60.101(8)(B) as soon as practicable, but no later than December 31, 1986, and shall submit to the Texas Air Control Board a final control plan for compliance no later than December 31, 1979.

.103. CONTROL TECHNIQUES. If add-on controls such as incinerators or vapor recovery systems are used to comply with the emission limitations requirements, the volatile organic compound capture and abatement system shall be at least 80 percent efficient overall. All surface coating facilities shall submit design data for each capture system and emission control device which are proposed for use to the Executive Director for approval.

.104. EXEMPTIONS.

(a) Surface coating operations located at any facility in Bexar, Brazoria, Dallas, Ector, El Paso, Galveston Gregg, Jefferson, Nueces, Orange, Tarrant or Victoria County which has a potential to emit a combined weight of volatile organic compounds less than 550 pounds (249 kg) in any consecutive 24-hour period are exempt from the provisions of Rule 131.07.60.101.

(b) Surface coating operations located at any facility in Harris County which has a potential to emit a combined weight of volatile organic compounds less than 100 pounds (45 kg) in any consecutive 24-hour period are exempt from the provisions of Rule 131.07.60.101.

(c) Any surface coating operation which is located at an affected facility on any property in the counties listed in Sections (1) or (2) of this rule are exempt from Sections (4), (5), and (6) of Rule 131.07.60.101 if such operation utilizes a web coating (printing) process in which the coating is not distributed uniformly across the web. This exemption applies to machines on which both coating and printing operations are performed.

ALTERNATE MEANS OF CONTROL IN OZONE NONATTAINMENT AREAS

131.07.61.101

.101. PROCEDURE.

(a) Any person affected by any control requirement of Sub-Chapters 131.07.51-.63 may request the Executive Director to approve alternate methods of control. The Executive Director shall approve such alternate methods of control if it can be demonstrated that such control will be substantially equivalent to the methods of control specified in this regulation.

(b) Direct-flame incineration for vent-gas control in Sub-Chapter 131.07.58 is not intended as an exclusive emission control method for volatile organic compounds. In no event shall a vent-gas stream be direct-flame incinerated without heat recovery if the incineration will have no practical effect in reducing the emission of air contaminants or will result in an actual degradation of air quality. In all such cases, application shall be made to the Executive Director for approval of an alternate method of control. The Executive Director may approve such alternate method if it represents the best alternative having due regard for the intent of Sub-Chapter 131.07.58 and the effect of emissions on ambient air quality.

VOLATILE ORGANIC COMPOUND EXEMPTION STATUS IN OZONE NONATTAINMENT AREAS
131.07.62.101-.103

.101. SPECIFIC EXEMPTIONS. Methane, Ethane, 1,1,1, Trichloroethane (Methyl Chloroform), and Trichlorotrifluoroethane (Freon 113), are exempted from control by Regulation V in Bexar, Brazoria, Dallas, Ector, El Paso, Galveston, Gregg, Harris, Jefferson, Nueces, Orange, Tarrant, and Victoria Counties.

.102. EXEMPTION CANCELLATION. All specific organic compound exemptions previously granted by the Executive Director prior to the effective date of this sub-chapter in the counties listed in the above rule (131.07.62.101) are cancelled on the effective date of this sub-chapter. Any person previously granted an exemption for a vent-gas stream prior to the effective date of this sub-chapter may reapply with evidence for its justification. The Texas Air Control Board may grant the specific vent-gas stream exemption if it can be demonstrated that the emissions from the stream will not make a significant contribution of air contaminants to the atmosphere.

.103. COMPLIANCE SCHEDULE. All persons affected by the above rule (131.07.62.102) shall be in compliance with all applicable rules contained in Regulation V as soon as practicable, but no later than December 31, 1981, and shall submit to the Executive Director a final control plan for compliance no later December 31, 1979.

COMPLIANCE IN OZONE NONATTAINMENT AREAS
131.07.63.101-.104

.101. SUPERSEDED RULES. The provisions of this Regulation supersede the provisions of Regulation V which was adopted on April 10, 1973 and last modified on December 10, 1976. Persons must remain in compliance with the provisions of the superseded regulation until compliance is achieved with Sub-Chapters 131.07.51-.63 of this superseding regulation.

.102. CONTROL PLAN PROCEDURE. A control plan for compliance shall be submitted to the Executive Director. The plan shall include a status report, unless a written report has been previously submitted, on the compliance status of all emission controls required by Regulation V, and a detailed description of the method to be followed to achieve compliance, specifying the exact dates by which the following steps will be taken to achieve compliance:

(1) Dates by which contracts for emission control systems or process modifications will be awarded; or dates by which orders will be issued for the purchase of component parts to accomplish emission control or process modification;

(2) Date of initiation of on-site construction or installation of emission control equipment or process change;

(3) Date by which on-site construction or installation of emission control equipment or process modification is to be completed;

(4) Date by which final compliance is to be achieved;

.103. CONTROL PLAN DEVIATION. No persons affected by the above rule (131.07.63.102) shall deviate from the terms of such control plans including the date for final compliance and the dates for accomplishing the required steps in such plans. The Executive Director may, upon application of any person affected, change the date for accomplishing the required steps in a plan. Any control plan, however, that specifies a final compliance date susequent to the date specified by any rules of Regulation V must be approved by the Texas Air Control Board under the provisions of Sections 3.21-.26 of the Texas Clean Air Act.

.104. REPORTING PROCEDURE. After a final control plan for compliance has been submitted to the Executive Director, progress reports shall be submitted every 90 days for all control plans specified in Rule 131.07.63.102. The Executive Director shall also be notified of the completion of each separate step in the control plan within five days after completion. All reports and notifications shall be submitted, in writing, by the person submitting the compliance control plan.

The rules contained herein shall be effective 30 days after the filing of two certified copies in the Office of the Secretary of State as provided in Section 10 of Article 6252-13(a), V.A.C.S.

REGULATION VI

CONTROL OF AIR POLLUTION BY PERMITS FOR NEW CONSTRUCTION OR MODIFICATION*

131.08.010 Permits (New Stationary Sources)

.001 Section 3.27(a) and Section 3.28(a) of the Texas Clean Air Act require any person who plans to construct any new facility or to engage in the modification of any existing facility which may emit air contaminants into the air of this State to obtain a construction permit from the Texas Air Control Board before any actual work is begun on the facility, and to obtain an operating permit from the Texas Air Control Board in order to continue to operate the facility after a sixty day start-up period.

.002 The owner of the facility is responsible for applying for and obtaining a permit to construct and operate.

.003

Consideration for Granting a Permit to Construct and Operate.

(a) In order to be granted a permit to construct, the owner or operator of the proposed facility shall submit information to the Texas Air Control Board which will demonstrate that all of the following are met:

(1) No change.
(2) Delete.
(3) through (9) No Change.
(10) All requirements of Section 129(a)(1) of the Clean Air Act Amendments of 1977 (PL 95-95). This provision shall not apply to new or modified facilities for which construction permit are issued after June 30, 1979.

(11) After June 30, 1979, the owner or operator of a proposed new facility which is a major stationary source of volatile organic compound emissions or which is a facility that will undergo a major modification with respect to VOC emissions and which is to be located in any area designated as nonattainment for ozone in accordance with Section 107 of the Federal Clean Air Act shall demonstrate that the following additional requirements are met:

* Offset restrictions granted under this reg-board order 78-6 for Corpus Christi Petrochemical Co. see non regulation 9/24/79 Federal Register Publication.

(A) The proposed facility will comply with the lowest achievable emissions rate (LAER) as defined in the General Rules.

(B) All major stationary sources owned or operated by the applicant (or by any person controlling, controlled by, or under common control with the applicant) in the state are in compliance or on a schedule for compliance with all applicable state and federal emission limitations and standards.

(12) After June 30, 1979, the owner or operator of a proposed new facility which is a major stationary source of volatile organic compounds (VOC) or which is a facility that will undergo a major modification with respect to VOC emissions, and which is to be located in Bexar, Dallas, El Paso, Harris, Nueces, or Tarrant County will provide information concerning his expected emissions to enable the Executive Director to determine that by the time the facility is to commence operation, total allowable emissions from existing facilities, from the proposed facility, and from new or modified facilities which are not major sources in the area will be sufficiently less than the total emissions from existing sources allowed in the area under the State Implementation Plan (SIP) prior to the application for the construction permit so as to represent reasonable further progress as defined in the General Rules.

(13) The owner or operator of a proposed facility which will be a major stationary source of VOC emissions or will undergo a major modification and is to be located in any area designated as non-attainment for ozone in accordance with Section 107 of the Federal Clean Air Act for which regulations and a control strategy providing for attainment of the standard have not been adopted by the Texas Air Control Board shall demonstrate that total allowable emissions from sources in the area will not increase as a result of the operation of the proposed facility.

(14) After June 30, 1979, the owner or operator of a proposed new facility to be located anywhere within the state that is a major stationary source of emissions of any air contaminant (other than volatile organic compounds - VOC) for which a national ambient air quality standard has been issued, or is a facility that will

undergo a major modification with respect to emissions of any air contaminant (other than VOC), must meet the following additional requirements if the ambient air quality impact of the source's emissions would exceed a de minimus impact level as defined in section 101.1 of the General Rules (relating to Definitions) in any area where the standard is exceeded or predicted to be exceeded.

(A) The proposed facility will comply with the lowest achievable emissions rate (LAER) as defined in the General Rules.

(B) All major stationary sources owned or operated by the applicant (or by any person controlling, controlled by, or under common control with the applicant) in the state are to be in compliance or on a schedule for compliance with all applicable state and federal emission limitations and standards.

(C) By the time the facility is to commence operation, total allowable emissions from existing facilities which have more than a de minimus impact on air quality in the same area as the proposed facility, from the proposed facility, and from new or modified facilities which are not major sources but which will have more than a de minimus impact on air quality in the same area as the proposed facility, will not cause the national air quality standard for that contaminant to be exceeded at any location and will not have more than de minimus impact on air quality at any location where the standard is exceeded.

(b) In order to be granted a permit to operate, the owner of the facility shall demonstrate that:

(1) The facility is complying with the rules and regulations of the Texas Air Control Board and the intent of the Texas Clean Air Act.

(2) The facility has been constructed and is being operated in accordance with the requirements for and conditions contained in the permit to construct.

(3) The facility is being operated in accordance with any applicable new source performance standards promulgated by the Environmental Protection Agency pursuant to authority granted

under Section 111 of the Federal Clean Air Act, as amended.

(4) The facility is being operated in accordance with any applicable National Emission Standard for Hazardous Air Pollutants promulgated by the Environmental Protection Agency pursuant to authority granted under Section 112 of the Federal Clean Air Act, as amended.

(c) At the time of application for a construction permit in accordance with this regulation, any applicant who has effected air contaminant emission reductions may also apply to the Executive Director to use such emission reductions to offset emissions expected from the source(s) for which the permit is sought provided that:

(1) The emission reductions are not required by any provision of the Texas State Implementation Plan.

(2) The applicant furnished documentation at the time of his permit application to substantiate his claim of emission reductions previously effected. The following information must be included in the documentation:

(A) Location and identity of the source(s) where emissions are reduced.

(B) Chemical composition of emissions reduced.

(C) Date(s) when emission reductions occurred.

(D) Amount of emission reductions expressed in rates of tons per year and in pounds per hour.

(E) A complete description of the reduction method (i.e., source shutdown, process or operational change, type of control device, etc.).

(F) A certification by the applicant that the emission reductions have in fact been achieved and that the same reductions have not been used previously and will not be used subsequently to offset another source.

(G) Any other pertinent detailed descriptive information that may be requested by the Executive Director.

(d) The Executive Director may grant authority to a permit applicant to use prior emission reductions and emission reductions granted to the applicant by another entity (either public or private) in accordance with Rule 131.08.00.003(c) if he determines that the prior emission reductions have, in fact, occurred and, when considered with other emission reductions that may be required by the permit, as well as contaminants that will be emitted by the new source, will result in compliance with Rules 131.08.00.002(a)(12), 131.08.00.002(a)(13), and/or 131.08.00.002(a)(14)(C) (whichever is applicable), in the area where the new source is to be located. Prior, as well as future emission reductions, to be used as offset will be made conditions for granting authority to construct the proposed new source and will be enforced.

(e) The Executive Director will maintain no records of emission offset credits claimed by an applicant in accordance with Rule 131.08.00.003(c) other than those contained in permit application and permit files. The applicant shall maintain all records necessary to substantiate claims of emission reductions and shall make such records available for inspection upon request of the Executive Director.

(f) Effective Date. This amended rule (131.08.00.003) shall be effective thirty days after the filing of certified copies in the office of the Secretary of State.

(15) The owner or operator of a proposed new facility in a designated nonattainment area which will be a major stationary source or a major modification of an existing facility for any air contaminant other than volatile organic compounds for which a national ambient standard has been issued must meet the following additional requirements regardless of the degree of impact of its emissions on ambient air quality if the facility is located in a designated nonattainment area, and is located on, or is contiguous to (except for intervening roadways) any property on which an ambient air quality standard is actually exceeded:

(A) The proposed facility will comply with the lowest achievable emissions rate (LAER) as defined in section 101.1 of this title (relating to Definitions) for the nonattaining pollutants.

(B) All major stationary sources owned or operated by the applicant (or by any person controlling, controlled by, or under common control with the applicant) in the state are to be in compliance or on a schedule for compliance with all applicable state and federal emission limitations and standards.

(C) At the time the facility is to commence operation, total allowable emissions of the nonattaining pollutant in the nonattainment area will not increase as a result of the operation of the proposed facility.

Rule 604. Pursuant to Section 3.27 (a) of the Texas Clean Air Act, a permit to construct and a permit to operate shall not be required for those sources exempt by the Texas Air Control Board. A list of exemptions is available upon request from the Executive Secretary of the Board.

Rule 605. Persons desiring to be exempt from the permit system may apply in writing to the Executive Secretary of the Texas Air Control Board.

Rule 606. Installations exempt by the Texas Air Control Board may be required by local air pollution control agencies to receive a permit or permits from that agency, or register with that agency.

Rule 607. The rules contained in this Regulation shall be in force immediately and shall supersede the previous Regulation VI which became effective on June 17, 1971.

REGULATION VII

CONTROL OF AIR POLLUTION FROM NITROGEN COMPOUNDS

131.09.00
(Rule 701.).001 Gas Fired Steam Generating Units.

(a) Rules 701.2, 701.3 and 701.4 shall apply only in the Dallas-Fort Worth and Houston-Galveston Air Quality Control Regions.

(b) No person may cause, suffer, allow or permit emissions of nitrogen oxides, calculated as nitrogen dioxide, from any "opposed fired" steam generating unit of more than 600,000 lbs/hour maximum continuous steam capacity to exceed 0.7 lbs/million Btu heat input, maximum two-hour average, at maximum steam capacity. An "opposed fired" steam generating unit is defined as a unit having burners installed on two opposite vertical firebox surfaces.

(c) No person may cause, suffer, allow or permit emissions of nitrogen oxides, calculated as nitrogen dioxide, from any "front fired" steam generating unit of more than 600,000 lbs/hour maximum continuous steam capacity to exceed 0.5 lbs/million Btu heat input, maximum two-hour average, at maximum steam capacity. A "front fired" steam generating unit is defined as a unit having all burners installed in a geometric array on one vertical firebox surface.

(d) No person may cause, suffer, allow or permit emissions of nitrogen oxides, calculated as nitrogen dioxide, from any "tangential fired" steam generating unit of more than 600,000 lbs/hour maximum continuous steam capacity to exceed 0.25 lbs/million Btu heat input, maximum two-hour average, at maximum steam capacity. A "tangential fired" steam generating unit is defined as a unit having burners installed on all corners of the unit at various elevations.

.002 Nitric Acid Manufacturing.

(a) No person may cause, suffer, allow, or permit emissions of nitrogen oxides, calculated as nitrogen dioxide, from any nitric acid manufacturing plant to exceed 600 parts per million by volume.

.003 Any person required to modify one steam generating unit to comply with Rule 701 shall be in compliance by July 1, 1974. Any person required to modify two or more steam generating units to comply with Rule 701 shall achieve compliance on at least 50% of such units by July 1, 1974, and shall achieve total compliance by July 1, 1976. On or before December 1, 1972, any person affected by Rule 701 shall submit to the Texas Air Control Board a written report of his compliance status, including but not limited to, the minimum time required to design, procure, install and test abatement equipment or procedures. Thereafter, progress reports shall be submitted to Persons affected by Rule 702 shall be in compliance with the provisions contained therein no later than December 31, 1973. On or before September 15, 1972, any person affected by Rule 702 shall submit to the Texas Air Control Board a written report of his compliance status, including but not limited to, the minimum time required to design, procure, install and test abatement equipment or procedures. Progress reports shall be submitted to the Board every four months, commencing in October of 1972, until compliance is achieved.

.004 The rules contained in this Regulation shall be in force immediately, and shall supersede the provisions of Regulation VII which became effective on March 5, 1972.

REGULATION VIII

CONTROL OF AIR POLLUTION EMERGENCY EPISODES

131.10.00 Episode Criteria
.001

(a) Emergency Episode - The excessive build-up of air contaminants to a level which would, if sustained, pose an imminent and substantial endangerment to the health of persons.

(b) Episode Criteria - The conditions by which the severity of an emergency episode is judged and which determine what action must be taken. The Executive Secretary in making such judgment shall be guided by the following criteria:

(1) Air Pollution Forecast - An internal watch by personnel of the Texas Air Pollution Control Services that may be actuated by receipt of an Atmospheric Stagnation Advisory (ASA), or equivalent local forecast of stagnant atmospheric conditions, is in effect.

(2) "Alert" - The level of the concentration of air contaminants at first stage when control action is to begin, necessitating the declaration of an Air Pollution Alert. First stage concentration occurs when any of the following levels is reached at the monitoring site:

Sulfur Dioxide (SO_2) - 800 μg/m^3 (0.3 ppm), 24-hour average

Particulate - 3.0 COHs or 375 μg/M^3, 24-hour average

Sulfur Dioxide and Particulate Combined - product of sulfur dioxide ppm, 24-hour average, and COHs equal to 0.2 or product of sulfur dioxide -- μg/M^3, 24-hour average, and particulate μg/m^3, 24-hour average equal to 65 x 10^3

Carbon Monoxide (CO) - 17 mg/M^3 (15 ppm), 8-hour average

Oxidant (O_3) - 200 μg/M^3 (0.1 ppm) 1-hour average

Nitrogen Dioxide (NO_2) - 1130 μg/M^3 (0.6 ppm), 1-hour average, 282 μg/M^3 (0.15 ppm), 24-hour average, and meteorological conditions are such the pollutant concentrations can be expected to remain at the above levels for twelve (12) or more hours or increase unless control actions are taken.

(3) "Warning" - The level of the concentration of air contaminants at second stage that indicates air quality is continuing to degrade and that additional control actions are necessary. The declaration of an Air Pollution Warning is necessary at second stage. Second stage concentration occurs when any one of the following levels is reached at the monitoring site:

Sulfur Dioxide (SO_2) - 1,600 μg/M^3 (0.6 ppm), 24-hour average.

Particulate - 5.0 COHs or 625 μg/M^3, 24-hour average.

Sulfur Dioxide and Particulate Combined - Product of sulfur dioxide ppm, 24-hour average and COHs equal to 0.8 or product of sulfur dioxide μg/m^3, 24-hour average and particulate μg/M^3, 24-hour average equal to 261×10^3.

Carbon Monoxide (CO) - 34 mg/M^3 (30 ppm), 8-hour average.

Oxidant (O_3) - 800 μg/M^3 (0.4 ppm) 1-hour average.

Nitrogen Dioxide (NO_2) - 2,260 μg/M^3 (1.2 ppm), 1-hour average; 565 μg/M^3 (0.3 ppm), 24-hour average,

and meteorological conditions are such that pollutant concentration can be expected to remain at the above levels for twelve (12) or more hours or increase unless control actions are taken.

(4) "Emergency" - The level of concentration of air contaminants at third stage that indicates air quality is continuing to degrade to the point that the most stringent controls become necessary. The declaration of an Air Pollution Emergency is necessary at third stage. Third stage concentration occurs when any one of the following levels is reached at the monitoring site:

Sulfur Dioxide (SO_2) - 2,100 μg/M^3 (0.8 ppm), 24-hour average.

Particulate - 7.0 COHs or 875 μg/M^3, 24-hour average.

Sulfur Dioxide and Particulate Combined - Product of sulfur dioxide ppm, 24-hour average and COHs equal to 1.2 or product of SO_2 ug/M^3, 24-hour average and particulate ug/M^3, 24-hour average equal to 393 x 10^3.

Carbon Monoxide (CO) - 46 mg/M^3 (40 ppm), 8-hour average.

Oxidant (O_3) - 1,200 ug/M^3 (0.6 ppm), 1-hour average.

Nitrogen Dioxide (NO_2) - 3,000 ug/M^3 (1.6 ppm), 1-hour average; 750 ug/M^3 (0.4 ppm), 24-hour average,

and meteorological conditions are such that this condition can be expected to continue for twelve (12) or more hours.

.002 Provisions Governing Emergency Episode Control

(a) When the Executive Secretary determines that episode criteria levels will be reached, he shall make or have made a declaration of an Air Pollution Alert, an Air Pollution Warning, or an Air Pollution Emergency, and the owner and/or operator of an emission source shall upon notice put into effect the abatement strategy emission plans as set forth in Appendices I, II, and III, respectively, which are made a part of this Regulation, according to the following schedule:

(1) Air Pollution Alert - When an Air Pollution Alert is declared, any owner and/or operator of an emissions source shall take Alert Level Actions and put into effect emission reduction plans as set forth in Appendix I.

(2) Air Pollution Warning - When an Air Pollution Warning is declared, any owner and/or operator of an emissions source shall take Warning Level Actions and put into effect emission reduction plans as set forth in Appendix II.

(3) Air Pollution Emergency - When an Air Pollution Emergency is declared, any owner and/or operator of an emission source shall take Emergency level actions and put into effect emission reduction plans as set forth in Appendix III.

(b) In the event a specified criteria level has been reached at one or more monitoring sites solely because of emissions from a limited number of sources, these sources shall be notified that the emission reduction plans of Appendices I, II, and III, or standby plans, are required to be put into effect until the criteria of the specified levels no longer apply.

(c) Enforcement - The Governor or any other properly designated official shall have the authority to declare an air pollution episode in accordance with Rule 801.2. The power to declare an emergency, to act on the basis of that declaration, and to take applicable enforcement measures is set forth in Section 3.14 (c) and Sub-Chapter D of the Texas Clean Air Act.

.003 Compliance Schedule

(a) Any owner and/or operator of a stationary source emitting 100 tons or more of any air contaminant per year shall submit in writing to the Executive Secretary, no later than 90 days after the adoption of this regulation, an emission reduction plan and monitoring schedule pertaining to his particular source in accordance with the objectives of Appendices I, II, and III, and Rule 802 herein. The emission reduction plan shall contain a statement as to the percent of reduction expected to be attained by implementation of each phase according to the Appendices. Each emission reduction plan, when approved by the Executive Secretary, shall be binding as of the effective date of this Rule. If an emergency episode should occur before the effective date, the sources affected by Rule 803.1 will be requested to take voluntary abatement action to reduce emissions during the emergency episode. If a request for voluntary curtailment of emissions does not result in reduction of the emissions, the Executive Secretary shall take the actions provided for in Section 3.14 of the Texas Clean Air Act to reduce or discontinue immediately the emission of air contaminants.

(b) Any owner and/or operator responsible for the operation of a source of air contaminants emitting less than 100 tons per year may be notified in writing by the Board or the Executive Secretary of the requirements of this regulation and shall be required to submit in writing to the Executive Secretary emission reduction plans designed to reduce or eliminate emissions pertaining to his particular source in accordance with the objectives of Appendices I, II, and III, and Rule 803 herein. Each reduction plan shall be submitted 90 days after request. When approved by the Executive Secretary, the plan shall be binding. If an emergency episode should occur prior to the Executive Secretary's request, the sources affected by this Rule 803.2 may be requested to take voluntary abatement action to reduce emissions during the emergency episode. If a request for voluntary curtailment of emissions does not result in the reduction of the emissions, the Executive Secretary shall take the actions provided for in Sec. 3.14 of the Texas Clean Air Act to reduce or discontinue immediately the emission of air contaminants.

.004 An Operations Manual for Emergency Episodes

Detailed procedures for public notification of impending (and actual) ASA's, Alert, Warning, and Emergency Phases; actions required by Texas Air Pollution Control Services personnel and local air pollution control personnel; notification of public officials; transmission of information to contiguous states as required will be made, upon publication, a part of this regulation.

.005 The rules contained in this regulation shall be in force immediately.

REGULATION IX

CONTROL OF AIR POLLUTION FROM CARBON MONOXIDE

.001. COUNTIES AFFECTED. This Regulation shall apply in the following counties:

(1) Aransas, Bexar, Brazoria, Calhoun, Dallas, El Paso, Galveston, Harris, Jefferson, Matagorda, Montgomery, Nueces, Orange, San Patricio, Travis and Victoria.

(2) Hardin and Tarrant.

.002. CONTROL REQUIREMENTS FOR SPECIFIED PROCESSES.

No person shall, in any one calendar year, emit into the atmosphere more than 5 tons (4426 kg) of carbon monoxide in a vent-gas stream from any catalyst regeneration of a petroleum or petrochemical process system, basic oxygen furnace, or fluid-coking unit unless the vent-gas stream is properly burned at a temperature equal to or greater than 1300^{o}F (704^{o}C) in a direct-flame incinerator or boiler.

.003. CONTROL REQUIREMENTS FOR IRON CUPOLAS.

No person shall emit a vent-gas stream from any iron cupola into the atmosphere unless the vent-gas stream is properly burned at a temperature equal to or greater than 1300^{o}F (704^{o}C) in an afterburner having a retention time of at least one-fourth (1/4) of a second, and having a steady flame that is not affected by the cupola charge and relights automatically if extinguished.

.004. CONTROL REQUIREMENTS FOR BLAST FURNACES.

No person shall emit a vent-gas stream from any blast furnace into the atmosphere unless the vent-gas stream is properly burned in a smokeless flare or is used in one or more of the following ways:

(1) To preheat the blast air before injection into the furnace through the tuyeres;

(2) For steam generation;

(3) For the heating of soaking pits;

(4) For the underfiring of coke ovens;

(5) For other miscellaneous heating uses.

.005. EXCEPTIONS.

Regulation IX is not intended to require incineration as an exclusive method of control. A vent-gas stream will not be required to be incinerated if the incineration will have no practical effect in reducing the emission of air contaminants. Incineration of a vent-gas stream shall not be allowed where it will result in an actual degradation of air quality. In all such cases, application shall be made to the Executive Director for approval of an alternate method of control. The Executive Director shall approve such alternate method if it represents the best available alternative having due regard for the intent of Regulation IX and the effect of the emissions on ambient air quality.

.006. ALTERNATE METHODS OF CONTROL.

Any person affected by any section of this Regulation may request the Executive Director to approve alternate means of control. The Executive Director shall approve such alternate means of control if it can be demonstrated that such control will be substantially equivalent to the methods of control approved by this Regulation.

.007. COMPLIANCE.

(a) All persons within the counties listed in Rule 131.11.00.001(1) are required to be in compliance on the effective date of this Regulation.

(b) All persons within the counties listed in Rule 131.11.00.001(2) shall be in compliance no later than February 29, 1980.

The rules contained herein shall be effective thirty (30) days after the filing of two certified copies in the Office of the Secretary of State as provided in Section 10 of Article 6252-13(a), V.A.C.S.

APPENDIX I

ABATEMENT STRATEGIES FOR EMISSION REDUCTION PLANS

ALERT LEVEL

Part A. GENERAL

1. There shall be no open burning by any persons of tree waste, vegetation, refuse, or debris in any form.

2. The use of incinerators for the disposal of any form of solid waste shall be limited to the hours between 12:00 noon and 4:00 p.m. except where the incinerator is an anti-pollution device integral in a process allowed to operate under "Source Curtailment" sections.

3. Persons operating fuel-burning equipment which required boiler lancing or soot blowing shall perform such operations only between the hours of 12:00 noon and 4:00 p.m.

4. Persons operating motor vehicles should eliminate all unnecessary operations.

Part B. SOURCE CURTAILMENT

Any person responsible for the operation of a source of air pollutants listed below shall take all required control actions for this Alert Level.

	Source of Air Pollution		Control Action
1.	Coal or oil-fired electric power generating facilities.	a.	Substantial reduction by utilization of fuels having low ash and sulfur content.
		b.	Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.
		c.	Substantial reduction by diverting electric power generation to facilities outside of Alert Area.
2.	Coal and oil-fired process steam generating facilities.	a.	Substantial reduction by utilization of fuels having low ash and sulfur content.

	b. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.
	c. Substantial reduction of steam load demands consistent with continuing plant operations.
3. Manufacturing industries of the following classifications: Primary Metals Industry. Petroleum Refining Operations. Chemical Industries. Mineral Processing Industries. Paper and Allied Products. Grain Industry.	a. Substantial reduction of air pollutants from manufacturing operations by curtailing, postponing, or deferring production and all operations.
	b. Maximum reduction by deferring trade waste disposal operations which emit solid particles, gases, vapors or malodorous substances.
	c. Maximum reduction of heat load demands for processing.
	d. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.

APPENDIX II

ABATEMENT STRATEGIES FOR EMISSION REDUCTION PLANS

WARNING LEVEL

Part A. GENERAL

1. There shall be no open burning by any persons of tree waste, vegetation, refuse, or debris in any form.

2. The use of incinerators for the disposal of any form of solid waste shall be prohibited except where the incinerator is an anti-pollution device integral in a process allowed to operate under "Source Curtailment" sections.

3. Persons operating fuel-burning equipment which requires boiler lancing or soot blowing shall perform such operations only between the hours of 12:00 noon and 4:00 p.m.

4. Persons operating motor vehicles must reduce operations by the use of car pools and increased use of public transportation and elimination of unnecessary operation.

Part B. SOURCE CURTAILMENT

Any person responsible for the operation of a source of air pollutants listed below shall take all required control actions for this Warning Level.

	Source of Air Pollution		Control Action
1.	Coal or oil-fired electric power generating facilities.	a.	Maximum reduction by utilization of fuels having lowest ash and sulfur content.
		b.	Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.
		c.	Maximum reduction by diverting electric power generation to facilities outside of Warning Area.
2.	Coal and oil-fired process steam generating facilities.	a.	Maximum reduction by utilization of fuels having the lowest available ash and sulfur content.

	b. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing. c. Making ready for use a plan of action to be taken if an emergency develops.
3. Manufacturing industries which require considerable lead time for shut-down including the following classifications: Petroleum Refining. Chemical Industries. Primary Metals Industries. Glass Industries. Paper and Allied Products.	a. Maximum reduction of air contaminants from manufacturing operation by, if necessary, assuming reasonable economic hardships by postponing production and allied operation. b. Maximum reduction by deferring trade waste disposal operations which emit solid particles, gases, vapors, or malodorous substances. c. Maximum reduction of heat load demands for processing. d. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing.
4. Manufacturing industries which require relatively short lead time for shut-down including the following classifications: Primary Metals Industries. Chemical Industries. Mineral Processing Industries. Grain Industry.	a. Elimination of air pollutants from manufacturing operations by ceasing, curtailing, postponing, or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment. b. Elimination of air pollutants from trade waste disposal processes which emit solid particles, gases, vapors, or malodorous substances. c. Maximum reduction of heat load demands for processing. d. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing.

APPENDIX III

ABATEMENT STRATEGIES FOR EMISSION REDUCTION PLANS

EMERGENCY LEVEL

Part A. GENERAL

1. There shall be no open burning by any persons of tree waste, vegetation, refuse, or debris in any form.

2. The use of incinerators for the disposal of any form of solid or liquid waste shall be prohibited except where the incinerator is an anti-pollution device integral in a process allowed to operate under "Source Curtailment" sections.

3. All places of employment described below shall immediately cease operations.

   a. Mining and quarrying of nonmetallic minerals.
   b. All construction work except that which must proceed to avoid emergent physical harm.
   c. All manufacturing establishments except those required to have in force an air pollution emergency plan.
   d. All wholesale trade establishments; i.e., places of business primarily engaged in selling merchandise to retailers, or industrial, commercial, institutional or professional users, or to other wholesalers, or acting as agents in buying merchandise for or selling merchandise to such persons or companies, except those engaged in the distribution of drugs, surgical supplies, and food.
   e. All offices of local, county, and State government including authorities, joint meetings, and other public bodies excepting such agencies which are determined by the chief administrative officer of local, county, or State government, authorities, joint meetings and other public bodies to be vital for public safety and welfare and the enforcement of the provisions of this order.
   f. All retail trade establishments except pharmacies, surgical supply distributors, and stores primarily engaged in the sale of food.
   g. Banks, credit agencies other than banks, securities and commodities brokers, dealers, exchanges and services; offices of insurance carriers, agents and brokers, real estate offices.
   h. Wholesale and retail laundries, laundry services and cleaning and dyeing establishments; photographic studios; beauty shops, barber shops, shoe repair shops.

i. Advertising offices; consumer credit reporting, adjustment and collection agencies; duplicating, addressing, blueprinting; photocopying, mailing list and stenographic services; equipment rental services, commercial testing laboratories.
j. Automobile repair, automobile services, garages.
k. Establishments rendering amusement and recreational services including motion picture theaters.
l. Elementary and secondary schools, colleges, universities, professional schools, junior colleges, vocational schools, and public and private libraries.

4. All commercial and manufacturing establishments not included in this order will institute such actions as will result in maximum reduction of air pollutants from their operation by ceasing, curtailing, or postponing operations which emit air pollutants to the extent possible without causing injury to persons or damage to equipment.

5. The use of motor vehicles is prohibited except in emergencies with the approval of local or State police.

Part B. SOURCE CURTAILMENT

Any person responsible for the operation of a source of air pollutants listed below shall take all required control actions for this Emergency Level.

Source of Air Pollution	Control Action
1. Coal or oil-fired electric power generating facilities.	a. Maximum reduction by utilization of fuels having lowest ash and sulfur content.
	b. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing.
	c. Maximum reduction by diverting electric power generation to facilities outside of Emergency Area.
2. Coal and oil-fired process steam generating facilities.	a. Maximum reduction by reducing heat and steam demands to absolute necessities consistent with preventing equipment damage.
	b. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing and soot blowing.

	c. Taking the action called for in the emergency plan.
3. Manufacturing industries of the following classifications: Primary Metals Industries. Petroleum Refining. Chemical Industries. Mineral Processing Industries. Grain Industry. Paper and Allied Products.	a. Elimination of air pollutants from manufacturing operations by ceasing, curtailing, postponing or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment.
	b. Elimination of air pollutants from trade waste disposal processes which emit solid particles, gases, vapors, or malodorous substances.
	c. Maximum reduction of heat load demands for processing.
	d. Maximum utilization of mid-day (12:00 noon to 4:00 p.m.) atmospheric turbulence for boiler lancing or soot blowing.